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protein - protein database search, using Smith-Waterman algorithm MPsrch_pp

Fri Feb 4 16:59:46 2000; MasPar time 4.96 Seconds 109.982 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-7 (1-10) from US09150813.pep 84 Description: Perfect Score: Sequence:

1 CADPKQKWVQ 10

PAM 150 Gap 15 Scoring table:

179066 segs, 54579741 residues

Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

sptremb19 Database:

1:sp_archea 2:sp_bacteria 3:sp_fungi 4:sp_human 5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle 9:sp_phage 10:sp_plant 11:sp_rodent 12:sp_unclassified 13:sp_vertebrate 14:sp_virus

Mean 24.747; Variance 35.072; scale 0.706 Statistics: Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Pred. No.	6.81e-05	6.81e-05	2.19e-03	5	2.39e-02	3.82e-02	3.82e-02	6.09e - 02	φ		2.41e-01	3.78e-01	9.20e-01	9.20e-01	1.43e+00	1.43e+00	2.20e+00	2.20e+00	2	3.39e+00
Description	NEUROTACTIN.	FRACTALKINE.	MPIF-2.	CC CHEMOKINE ST38 PREC	BETA CHEMOKINE EXODUS-	CHEMOKINE EXODUS.	CC CHEMOKINE EXODUS.	LYMPHOTACTIN PRECURSOR	CX3C CHEMOKINE PRECURS	LD78 ALPHA BETA PRECUR	CC CHEMOKINE ABCD-1.	CC CHEMOKINE-1.	RANTES PRECURSOR.	B LYMPHOCYTE CHEMOATTR	IL-10-INDUCIBLE CHEMOK	HYPOTHETICAL 21.4 KD P	BETA CHEMOKINE EXODUS-	SMALL INDUCIBLE CYTOKI	RIBONUCLEOSIDE REDUCTA	ORF K6.
Ð	035188	035933	000175	089093	000585	099664	P97884	057411	P78423	014745	088430	093238	043646	055038	015467	083516	900600	009002	084834	098158
DB	: ::	11	4	11	4	4	11	13	4	4	급	13	4	11	4	~	11	11	7	14
Query Match Length	395	395	119	97	134	95	96	97	397	80	92	101	91	109	120	187	133	133	1053	95
Query Match	95.2	95.2	86.9	84.5	81.0	79.8	79.8	78.6	78.6	76.2	75.0	73.8	71.4	71.4	70.2	70.2	0.69	0.69	0.69	67.9
Score	80	80	73	71	68	49	67	99	99	64	63	62	9	9	59	59	28	58	28	27
Result No.		7	m	4	S	v	7	80	6	10	11	12	13	14	15	16	17	18	19	20

3.39e+00 3.39e+00 5.39e+00 7.89e+00 7.89e+00 7.89e+00 7.89e+00 7.89e+01 1.20e+01 1.2	
INTERLEUKIN-8 (FRAGMEN RESISTANCE GENE HOWOLD DOWNY MILDOW RESISTANC SERICANC SERINE RESISTANC SERINE RESISTANCE GENERAL 16.6 KD PROPERTORING (FRAGMEN ORF UL154. HYPOCHERICAL 53.8 KD PNP47 PROTEIN (FRAGMEN ORF UL154. TOID3.3 PROTEIN. ENVELOPE GINCOPROTEIN CATAGORICAL GENERAL SEGIBLE INSERTION ELEMENT ISGIBLE INSERTION ELEMENT ISGIBLETANCE GENE HOWOLD EBILL ILIGAND CHEMOKINE INSERTION ELEMENT ISGIBLETANCE GENE HOWOLD EBILL INSERTION ELEMENT ISGIBLETANCE GENE HOWOLD ELEMENT INSERTION ELEMENT ISGIBLETANCE GENE HOWOLD EBILL INSERTION ELEMENT ISGIBLETANCE GENE HOWOLD	PLEAIN 3.
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#### ALIGNMENTS

		( я.		IA; EUTHERIA; RODENTIA;				J., VATH	IN A., CULPEPPER J.,		gulated in brain						Length 395; ; Indels 0; Gaps 0;								(ar)		IA; EUTHERIA; RODENTIA;	
PRT; 395 AA.		3, LAST ANNOTATION UPDATE)		ATA; VERTEBRATA; MAMMAL	RINAE; MUS.			9/320499. CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH	ULT B., WOOLF B., ALPER	RING D.;	anchored chemokine upre		1			MW; E3CD0612 CRC32;	; Score 80; DB 11; ; Pred. No. 6.81e-05; 1; Mismatches 0					PRT; 395 AA.		05, CKEATED) 05. LAST SECTIENCE UPDATE)			ATA; VERTEBRATA; MAMMAI	RINAE; MUS.
LT 1 035188 PRELIMINARY;	1998 (TREMBLREL.	(TREMBLREL.	SCYD1. MUS MUSCULUS (MOUSE).	EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;	SCIUROGNATHI; MURIDAE; MURINAE; MUS.			MEDLINE; 97320499. PAN Y., CLARE L., HONG Z.,	GOSSELIN M., MA J., DUSSAULT B., WOOLF B., ALPERIN A.,	GUTIERREZ-RAMOS J.C., GEARING D.;	"Neurotactin, a membrane-anchored chemokine upregulated	inflammation.";	MAIURE 36/:011-01/(193/).	MGD: MGI:1097153; SCYD1.	PFAM; PF00048; i18; 1.	SEQUENCE 395 AA; 42098	Query Match 95.2%; Best Local Similarity 90.0%; Matches 9; Conservative	74 CADPKEKWVQ 83	=	1 CADPROKWVQ 10	JLT 2	O35933 PRELIMINARY;		O1-JAN-1998 (TREMBEREL: O	(TREMBLREL.	FRACTALKINE.	MUS MUSCULUS (MUUSE). EUKARYOTA: METAZOA: CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;	SCIUROGNATHI; MURIDAE; MURINAE; MUS
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HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
[1]
SEQUENCE FROM N.A.
STAIN-BALB/C; TISSUE-BRAIN;
ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
ZLOTNIK A., BAZAN J.F.;
SUBMITTED (MAR.1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL. 192565; G2459677; -.
PFAM: PRO0048; ills; 1.
SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;
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0
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PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
NARDELLI B., PIPPALLA V., GENTZ S., THOTAKURA R., PARMELEE D.,
GENTZ R., GAROTTA G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LESSLAUER W.;
"A novel rat CC chemokine, identified by targeted differential
display, is upregulated in brain inflammation.";
J. NEUROIMMUNOL. 0:0-0(1998).
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0
                                                                                                          Score 80; DB 11; Length 395;
Pred. No. 6.81e-05;
1; Mismatches 0; Indels
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UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
                                                                                                                                                                                                                                                                                                                                                                                                                     Score 73; DB 4; Length 119;
Pred. No. 2.19e-03;
1; Mismatches 1; Indels
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EMBL: AF053313; G3551819; -.
EMBL; AJ007862; E1312757; -.
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LAST ANNOTATION UPDATE)
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01-NOV-1998 (TREMBLREL. 08, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
CC CHEMOKINE ST38 PRECURSOR.
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JEXP. MED. 0:0-0(0).
JEXP. MED. 0:0-0(0).
EMBL; U85768; G1916252; --
PFAM; PF00048; il8; 1.
TOTTENCE 119 AA; 13119 MW; CDF526F0 CRC32;
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04,
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Best Local Similarity 90.0%;
Matches 9; Conservative
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Best Local Similarity 80.0%;
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000175,
01-JUL-1997 (TREMBLREL. 04
01-JUL-1997 (TREMBLREL. 06
01-NOV-1998 (TREMBLREL. 06
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| CADPKQKWVQ 10
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089093
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000585; CTREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-OU-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
BETA CHEMOKINE EXODUS-2.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METALOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                            Gaps
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HROMAS R., GRAY P.W., CHANTRY D., GODISKA R., KRATHWOHL M., FIFE K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 97400322.
HEDRICK J.A., ZLOTNIK A.;
HEDRICK J.A., ZLOTNIK A.;
"Identification and characterization of a novel beta chemokine containing six conserved cysteines.";
J. IMMUNOL. 159:1589-1593(1997).
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0
                                                               Length 97;
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larity 80.0%; Pred. No. 2.39e-02;
Conservative 1; Mismatches 1; Indels
                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
HROMAS R.A., GRAY P., KLEMSZ M., FIFE K., BROXMEYER H.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. HEDRICK J.A., ZLOINIK A.; SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                         Score 71; DB 11; Le:
Pred. No. 5.74e-03;
1; Mismatches 0;
POTENTIAL.
CC CHEMOKINE ST38.
053405BD CRC32;
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1 27 1
28 97 (
97 AA; 10826 MW;
                                                         84.5%;
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                                                                                        8; Conservative
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01-NOV-1998 (TREMBLREL.
                                                                       Best Local Similarity
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                           SEQUENCE
                                                         Query Match
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Q99664;
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                 Gaps
BELL G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., BROXMEYER H.E., KLEMSZ M.J.; Clohing and characterization of exodus, a novel beta-chemokine."; BLOOD 89:3315-3322(1997).

EMBL; U64197; G1778177; -
PROSITE; PSO04042; SMALL_CYTOKINES_CC; 1.

PERM; PFO0048; 118: 1.

SEQUENCE 95 AA; 10691 MW; 1526B4C0 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                         LESSLAUER W.;
"A novel rat C chemokine, identified by targeted differential display, is upregulated in brain inflammation.";
J. NEUROIMMUNOL. 0.0-0(1998).
EMBL: 109047; G1899246; -.
EMBL: AF053312; G3551817; -.
PFAM; PF00048; i18; 1.
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN-FISHER 344; TISSUE-BRAIN;
UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 67; DB 11; Length 96;
Pred. No. 3.82e-02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                     STRAIN-SPRAGUE-DAWLEY;
KELMER G.S., MACIEJEWSKI-LENOIR D., LEE E.D., MAKI R.A.;
SUBMITTED (FEB-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                        Score 67; DB 4; Length 95;
Pred. No. 3.82e-02;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ROSSI D.L., BAZAN J.F., ZLOINIK A.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF006742; G2827882; -
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06, LAST SEQUENCE UPDATE)
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03,
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Best Local Similarity 88.9%;
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Best Local Similarity 77.8%;
Matches 7; Conservative
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01-MAY-1997 (TREMBLREL: 0
01-MAY-1997 (TREMBLREL: 0
01-NOV-1998 (TREMBLREL: 0
CC CHEMOKINE EXODUS.
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01-JUN-1998 (TREMBLREL.
01-JUN-1998 (TREMBLREL.
LYMPHOTACTIN PRECURSOR.
                                                                                                                                                                                                                             PRELIMINARY;
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1 CADPKQKWV 9
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EUKRAYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRWANN J., MASON T.M.,
BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
BRANDON R., KIM U.J., KELAVAGE A.R., VENTER J.C.;
BRANDON R., HIM U.J., KELAVAGE A.R., VENTER J.C.;
SUBMITTED (JUN-1999) TO EMBL/GENBANK/DDBJ DATA BANKS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE-BRAIN;
ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K.,
KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M., MIURA R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BAZAN J. SOO K., ROSSI D., BAZAN C., WANG W., SOO K., ROSSI D., GREAVES D.R., ZLOTNIK A., SCHALL T.J.; "A new class of membrane-bound chemokine with a CX3C motif."; NATURE 385:640-644(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 397;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                 Length 97;
                                                               Score 66; DB 13; Length 97;
Pred. No. 6.09e-02;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUBMITTED (AUG-1995) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; D63785; D1010501; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-JAN-1999 (TREMBLREL. 09, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                         LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 66; DB 4; Le Pred. No. 6.09e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CX3C CHEMOKINE.
C8093D7D CRC32;
             LYMPHOTACTIN,
3290101C CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Mismatches
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                                                                                                                                                                                                                                                       397 AA.
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POTENTIAL.
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                                                                                                                                                                                                                                                                                          CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL 1 24 E
CHAIN 25 397 C
SEQUENCE 397 AA; 42202 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL, U91835; G1899259; -.
EMBL, U84487; G1888523; -.
EMBL, ACO04382; G3252821; -.
PFAM; PF00048; 118; 1.
 1 24 F
25 97 I
97 AA; 11131 MW;
                                                                                                                                                                                                                                                                                    01-MAY-1997 (TREMBLREL. 03,
01-MAY-1997 (TREMBLREL. 03,
01-NOV-1998 (TREMBLREL. 08,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 77.8%;
Matches 7; Conservative
                                                                   Query Match
Best Local Similarity 70.0%;
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                              CX3C CHEMOKINE PRECURSOR.
                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. MEDLINE; 97177111.
                                                                                                                                                                                 1 CADPKQKWVQ 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         74 CADPKEQWV 82
                                                                                                                                             73 CVHPEQKWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 CADPKOKWV 9
                                                                                                                                                                                                                                                                          P78423; 000672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MIYAKAWA T.;
                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LT 10
Q14745
Q14745;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE;
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P78423
     SIGNAL
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74 CSDPKLRWV 82
                                       NOMIYAMA H.;
                                                                                 LT 13
043646
043646;
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055038
055038;
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                                                                                 RESULT
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                                                                                                                                                                                                                                                                                   CC CHEMOKINE ABCD-1.
MUS MUSCULUS (MOUSE).
EUKARYOTA: METAZOA; CHORDATA: VERTEBRATA: MAMMALIA: EUTHERIA: RODENTIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1998 (TREMBLREL. 08, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
CC CHEMOKINE-1.
CYPRINUS CARPTO (COMMON CARP).
EUKARYOTA, METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERVGII; NEOPTERYGII;
TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
CYPRINIDAE; CYPRININAE; CYPRINUS.
                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                   SIDERAS P.;
"Activated murine B lymphocytes and dendritic cells produce a novel CC chemoKine which acts selectively on activated T cells.";
CXP. MED. 188:451-463(1998).
EMBL, APC52505; G378116; -...
SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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0
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0
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SCHANIEL C., PARDALI E., SALLUSTO F., SPELETAS M., RUEDL C.,
SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. FUJIKI K., NAKAO M., SHIN D., YANO T.; "CDNA cloning of a carp CC chemokine homologous to mammalian
                                                                                                         Score 64; DB 4; Length 80;
Pred. No. 1.53e-01;
1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 75.0%; Score 63; DB 11; Length 92; Best Local Similarity 77.8%; Pred. No. 2.41e-01; Matches 7; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AB010469; D1032417; -,
SEQUENCE 101 AA; 11266 MW; 9CFBD540 CRC32;
                                                                                                                                                                                                                                               01-NOV-1998 (TREMBLREL. 08, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                  POTENTIAL.
LD78 ALPHA BETA.
                                                                                    3F87F1C6 CRC32;
                                                                                                                                                                                                                                92 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101 AA.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; i18; 1.
                                                                                                                                                                                                                                PRT;
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                                     1
16
>80
80
8857 MW;
                                                                                                           76.2%;
70.0%;
                                                                                          Ouery Match
Best Local Similarity 70.vv,
7; Conservative
                                                                                                                                                                                                                            PRELIMINARY;
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                                                                                                                                                      67 CADPSEEWVQ 76
                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                   80 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       76 CADPROVWV 84
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SEQUENCE
                                   NON_TER
SIGNAL
                                                                                                                                                                                                              LT 11
088430
088430;
                          SIGNAL.
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093238
093238;
                                                            CHAIN
                                                                                                                                                                                                                RESULT
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CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUN-1998 (TREMBLREL. 06, CREATED)
01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
8 LYMPHOCYTE CHEMOATTRACTANT BLC.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WILLIAMS L.T.; "A B-cell-homing chemokine made in lymphoid follicles activates
                                                                                                                                                                                                                                                                                                                                     "Structure of a region of 181 kb containing five CC chemokine genes.", SHANG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF043341; G2905632; EMBL, AF088219; G3719366; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
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MEDLINE: 98146056.
GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 60; DB 4; Length 91;
Pred. No. 9.20e-01;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 60; DB 11; Length 109;
Pred. No. 9.20e-01;
3; Mismatches 2; Indels
                                                                                                                                                                                                               SEQUENCE FROM N.A.
JANG J.S., KIM B.E.;
SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                  01-JUN-1998 (TREMBLREL. 06, CREATED)
01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Burkitt's lymphoma receptor-1.";
NATURE 391:799-803(1998).
EMBL; AF044196; G2911374; -.
SEQUENCE 109 AA; 11927 MW; BB6CCC22 CRC32;
      91 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CF404FAD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              109 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             POTENTIAL.
      PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
71.4%;
Best Local Similarity 60.0%;
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     71.4%;
Similarity 50.0%;
5; Conservative
PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                        HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73 CANPEKKWVR 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                RANTES PRECURSOR.
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1 CADPKQKWVQ 10
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Gaps

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Ouery Match

Dest Local Similarity 66.7%; Pred. No. 3.78e-01;

Matches 6; Conservative 2; Mismatches 1; Indels

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PECULAR EROW N.A.

SEQUENCE FROM N.A.

MEDLINE; 98308096.

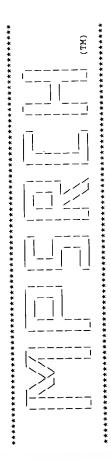
A MODLINE; 98308096.

A YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
YOUN B.S., ZHANG S.,
RANGOC G., KWON B.S.;
TISOLATION and characterization of LMC, a novel lymphocyte and
monocyte chemoattractent human CC chemokine, with myelosuppressive
if activity.";
BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
BIREL, U91746; G2581781;
BIREL, AF088219; G3719365;
BIREL, BREL, RESEAGO, G3395776;
BIREL, PRAM: PFONOW&; 118; 1.
                                                                                                                                                                                                                                   ILINCK OR SCYAI6.
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE=LIVER;
SHODDAI K., HIESHIMA K., FUKUDA S., IIO M., MIURA R., IMAI T.,
YOSHIE O., NOMIYAMA H.;
BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NOMIYAMA H.; "Structure of a region of 181 kb containing five CC chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   / Match 70.2%; score 59; DB 4; Length 120; Local Similarity 50.0%; Pred. No. 1.43e+00; hes 5; Conservative 4; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                         HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
SUBMITTED (NOV-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                76 CINPNDDWVQ 85
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| CADPKQKWVQ 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
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SEQUENCE FROM N.A.
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OTHER

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Search completed: Fri Feb 4 17:00:18 2000 Job time : 32 secs.



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protein - protein database search, using Smith-Waterman algorithm MPsrch_pp

Fri Feb 4 17:04:22 2000; MasPar time 5.13 Seconds 127.601 Million cell updates/sec Run on:

>US-09-150-813-38 (1-12) from US09150813.pep 102 Title: Description: Perfect Score:

Tabular output not generated.

1 QVCIDPKLKWIQ 12 Sequence:

179066 seqs, 54579741 residues PAM 150 Gap 15 Searched:

Scoring table:

Minimum Match 0% Listing first 45 summaries Post-processing:

sptremb19 Database:

1:sp_archea 2:sp_bacteria 3:sp_fungi 4:sp_human 1:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle 9:sp_phage 10:sp_plant 11:sp_rodent 12:sp_unclassified 13:sp_vertebrate 14:sp_virus

Mean 26.040; Variance 34.545; scale 0.754 Statistics: pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Pred. No.	63e-02	63e-02	.32e-02	.99e-02	1.13e-01	1.13e-01	1.13e-01	2.89e-01	2.89e-01	1.61e-01	1.61e-01	4.61e-01	7.30e-01	1.15e+00	1.81e+00	1.81e+00	2.83e+00	2.83e+00	2.83e+00	2.83e+00	
Description	Π.	B LYMPHOCYTE CHEMOATTR 1	CXC CHEMOKINE PRECURSO 4	_	LYMPHOTACTIN PRECURSOR 1	FRACTALKINE.		SETA PRECUR	YUP8H12R.20. 2	RANTES PRECURSOR. 4	ORF31. 4	ECO Q PROTEIN (FRAGMEN 4	CC CHEMOKINE ST38 PREC 7	CHROMOSOME IV COSMID 9 1	MACROPHAGE-DERIVED CHE 1	MPIF-2.	CHROMOSOME XII COSMID 2	RECEPTOR TYROSINE KINA	PROHORMONE CONVERTASE	DOKA DROTEASE	
a	062812	055038	043927	093238	057411	035933	035188	014745	064533	043646	036474	067634	089093	006640	000626	000175	006151	076167	013527	FC0000	470767
DB	9	11	4	13	13	11	11	4	10	4	œ	14	11	m	4	4	m	ഗ	4	٠.	#
Query Match Length DB	97	109	109	101	97	395	395	80	1325	91	129	203	97	478	6	119	350	999	000		UT A
% Query Match 1	67.6	67.6	65.7	64.7	63.7	63.7	63.7	61.8	61.8	8.09	8.09	60.8	59.8	58.8	57.8	57.8	9.05	0.00			20.9
Score	69	69	67	9	9 9	65	65	63	93	62	62	62	19	09	65	20	י מ ייני	o cc	o a	0 0	Ω
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CHEMOKINE EXODUS. CC CHEMOKINE EXODUS. IL-10-INDUCIBLE CHEMOK BETA CHEMOKINE EXODUS- HYPOTHETICAL 37.4 KD P PUTATIVE REVERSE TRANS KGO PROTEIN PRECURSOR. RNA POLYMERASE. LFCA-1 PROTEIN PRECURSOR. TRANSPOSASE-LIKE PROTE HYPOTHETICAL 55.2 KD P SNAIL HOMOLOG. HYPOTHETICAL 16.8 KD P SEQUENCE OF RACFELLY OSSOURCE OF R	ASNI:
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ALIGNMENTS

RESULT	1		Ē	, F
Ω	062812 P	PRELIMINARY;	PRT;	9/ AA.
AC	062812;	!		
DŢ	01-AUG-1998	(TREMBLREL. 07, 0	CREATED)	
겁	01-AUG-1998	(TREMBLREL. 07,	LAST SEQU	LAST SEQUENCE UPDATE)
DI	01-AUG-1998	(TREMBLREL. 07,	LAST ANNO	LAST ANNOTATION UPDATE)
DE	INTERLEUKIN-	INTERLEUKIN-8 (FRAGMENT).		
N U	IL-8.			
SO	EQUUS CABALLUS (HORSE).	US (HORSE).		
8	EUKARYOTA; M	ETAZOA; CHORDAT	A; VERTEBR	EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHEKIA;
8	PERISSODACTY	PERISSODACTYLA; EQUIDAE; EQUUS.	UUS.	
RN	[1]			
RP	SEQUENCE FROM N.A.	M N.A.		
RC	TISSUE=BRONC	TISSUE-BRONCHOALVEOLAR TISSUE;	UE;	
RA	FRANCHINI M.;			
RL	SUBMITTED (A	PR-1998) TO EMB	L/GENBANK/	DDBJ DATA BANKS.
DR	EMBL; AF0623	77; G3126973; -		EMBL; AF062377; G3126973;
F	NON TER	97 97		
Š	SEQUENCE 9	97 AA; 10742 MW; 00396FBF CRC32;	7; 00396FB	F CRC32;
0	uery Match	67.68;	Score 69;	Score 69; DB 6; Length 97;
щ	est Local Simi	Best Local Similarity 50.0%;	Pred. No.	1.63e-02;
Σ	Matches 6;	6; Conservative	4; Mismatches	'0 STEMBER '7
QQ	75 EVCLNPHTKWVQ 86	1TKWVQ 86		
ÓΥ	1 QVCIDP	1 QVCIDPKLKWIQ 12		

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055038; 01-JUN-1998 (TREMBLREL. 06, CREATED) 01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE) 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE) B LYMPHOCYTE CHEMOATTRACTANT BLC. MUS MUSCULGS (MOUSE) EUKARYOTA, METAZOA: CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS. SEQUENCE FROM N.A.
STRAIM-CS7BL/6J;
MEDILINE, 98146095.
GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G., PRT; 109 AA. PRELIMINARY; LT 2 055038

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EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
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                                                                                                                                     Gaps
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BAGGIOLINI M., MOSER B.;
B bell-attracting chemokine 1, a human CXC chemokine expressed in
lymphoid tissues, selectively attracts B lymphocytes via
BLRI/CXCR5.;
          "A B-cell-homing chemokine made in lymphoid follicles activates Burkit's lymphoma receptor-1."; NATURE 391:799-803(1998) EMBL; AF044196; G2911374; SEQUENCE 109 AA: 11927 MW; BB6CCC22 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "A B-cell.homing chemokine made in lymphoid follicles activates Burkitt's lymphoma receptor-1.";
NATURE 391:799-803(1998).
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                                                                                                       Length 109;
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                                                                                             // Match
Local Similarity 45.5%; Pred. No. 1.63e-02;
les 5; Conservative 5; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
NAPOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.M.;
SUBMITTED (OCT-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL: AJ002211; E1249325; --
EMBL: AF044197; G2911376; --
EMBL: AF029894; G3169814; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65.7%; Score 67; DB 4; Length 109; 63.6%; Pred. No. 4.32e-02; Ative 1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                       LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
CC CHEMOKINE-1.
CYPRINUS CARPIO (COMMON CARP).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHAIN 23 109 POTENTIAL.
SEQUENCE 109 AA; 12664 MW; BE5A46BC CRC32;
                                                                                                                                                                                                                                             109 AA
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                                                                                                                                                                                                                                                                        CREATED)
                                                                                                                                                                                                                                             PRT;
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01-JUN-1998 (TREMBLREL. 06,
01-NOV-1998 (TREMBLREL. 08,
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                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                           CXC CHEMOKINE PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                     74 ICVNPRAKWLQ 84
                                                                                                                                                                                2 VCIDPKLKWIQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
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WILLIAMS L.T.;
                                                                                                 Query Match
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043927
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII; TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA; CYPRINIDAE; CYPRININAE; CYPRINIOS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                            Gaps
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0
                                                                   FUJIKI K., NAKAO M., SHIN D., YANO T.; "CDNA cloning of a carp CC chemokine homologous to mammalian
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STRAIN=BALB/C; TISSUE=BRAIN;
ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL, UQ2565; G2459677; -.
EMBL, PPEMS, PF00048; i18; 1.
SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                              EUKARYOTA; METAZOA; CHÓRDATA; VERTEBRATA; ARCHOSAURIA; AVES;
NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
                                                                                                                                                                                Length 101;
                                                                                                                                                                        Score 66; DB 13; Length 101
Pred. No. 6.99e-02;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 65; DB 13; Length 97;
Pred. No. 1.13e-01;
4; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ouery Match 63.7%; Score 65; DB 11; Length 395; Best Local Similarity 70.0%; Pred. No. 1.13e-01;
                                                                                                            SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AB010469; D1032417; -
SEQUENCE 101 Aa: 11266 Mw; 9CFBD540 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-SPLEEN;

SOSI D.L., BAZAN J.F., ZLOTNIK A.;
SUBNITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL, AF006742; G2827882; -.
                                                                                                                                                                                                                                                                                                O57411 PRELIMINARY; PRT; 97 AA.
O57411, O57411, O1.JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
O1-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
LYMPHOTACTIN PRECURSOR.
GALLUS GALLUS (CHICKEN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-57N-1998 (TREMBLREL. 05, CREATED)
01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LYMPHOTACTIN.
3290101C CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   395 AA.
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                                                                                                                                                                        Ouery Match 64.7%;
Best Local Similarity 66.7%;
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Match 63.7%;
Local Similarity 41.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 QVCIDPKLKWIQ 12
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                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                              74 CSDPKLRWV 82
                                                                                                                                                                                                                                                  3 CIDPKLKWI 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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25
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035933
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Matches

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01-JUN-1998 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
                                                                PRELIMINARY;
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STRAIN-CV. COLUMBIA;
THEOLOGIS;
                                                                                                                                                                                                                                                                                                                                                              STRAIN=CV. COLUMBIA;
THEOLOGIS A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
STRAIN=CV. COLUMBIA;
                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN=CV. COLUMBIA;
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SEQUENCE FROM N.A.
STRAIN=CV. COLUMBIA;
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RANTES PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 CIDPKLKWI 11
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043646
043646;
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064533
064533;
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
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                                                                                                                                                                                                               MUS MUSEULUS (MOUSE).
HUS MUSARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                         MEDLINE; 97320499.

PAN Y, CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J.,
PAN Y, CLARE L., LOUSSAULT B., WOOLF B., ALPERIN A., CULPEPPER J.,
GUTIERREZ-RAMOS J.C., GEARING D.;
"Neutotactin, a membrane-anchored chemokine upregulated in brain
"Neutotactin, a membrane-anchored chemokine upregulated in brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
        Gaps
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Pred. No. 1.13e-01;
1; Mismatches 2; Indels
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Pred. No. 2.89e-01;
1; Mismatches 4; Indels
        2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (AUG-1995) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL. D63785; D1010501; -.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFONO48; i18; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-JAN-1999 (TREMBLREL. 09, LAST ANNOTATION UPDATE)
                                                                                                                                             01-JAN-1998 (TREMBLREL. 05, CREATED) 01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE) 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE) NEUROTACTIN.
                                                                                                                                                                                                                                                                                                                                                                          NATURE 387:611-617(1997).

EMBL; AF010586; G2317698; -.

MGD; MG1:1097153; SCYD1.

PFAM; PF00048; i18:1.

SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;
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LD78 ALPHA BETA.
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        1; Mismatches
                                                                                                                     395 AA
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                                                                                                                        PRT;
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80 AA; 8857 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Guery Match 61.8%;
Best Local Similarity 58.3%;
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Watch 63.7%;
Local Similarity 70.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7; Conservative
             7; Conservative
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                                                                                                                        PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 CIDPKLKWIQ 12
                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                       74 CADPKEKWVQ 83
                                                        1 ||| ||:|
3 CIDPKLKWIQ 12
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SEQUENCE
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SIGNAL
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Q14745
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035188
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q ò 65 QVCADPSEEWVQ 76

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                                                                                                                                         ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
EUKRAYOTA; VIRIDIPLANTAE; STREPTOPHYTA; EMBRYOPHYTA; TRACHEOPHYTA;
EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA; EUDICOTYLEDONS; ROSIDAE;
CAPPARALES; BRASSICACEAE; ARABIDOPSIS.
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                                                                                                                                                                                                                                                                                               THEOLOGIS A., VYSOTSKAIA V.S., OSBORNE B.I., SCHWARTZ J.R., FEDERSPIEL N.A., KWAN A., TORIUMI M., YU G., OJI, O, ARAUJO R., CHUNG E., DEWER K., DIETRICH F., ECKER J.R., MARZIALI A., OEFNER P., DAVIS R.W.;
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61.8%; Score 63; DB 10; Length 13;
Best Local Similarity 77.8%; Pred. No. 2.89e-01;
Matches 7; Conservative 0; Mismatches 2; Indels
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SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBMITTED (MAY-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AC02986; G3152582; - .
SEQUENCE 1325 AA; 148916 MW; 444300A9 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBMITTED (OCT-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
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LAST ANNOTATION UPDATE)
                                   01-AUG-1998 (TREMBLREL. 07, CREATED)
01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
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PRT; 1325 AA.
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DNA sequence and secondary structures of the large subunit rRNA coding regions and its two class I introns of mitochondrial DNA from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CUMMINGS D.C., DOMENICO J.M., NELSON J., SOGIN M.L.; "DNA sequence, structure, and phylogenetic relationship of the small subunit rRNA coding region of mitochondrial DNA from Podospora
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TURKER M.S., DOMENICO J.M., CUMMINGS D.J.;
"Excision-amplification of mitochondrial DNA during senescence in Podospora anserina. A potential role for an 11 base-pair consensus Sequence in the excision process.";
J. MOL. BIOL. 198:171-185(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CUMMINGS D.J., DOMENICO J.M.;
"Sequence analysis of mitochondrial DNA from Podospora anserina.
Pervasiveness of a class I intron in three separate genes.";
J. MOL. BIOL. 204:815-839(1988).
          Structure of a region of 181 kb containing five CC chemokine
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                                                                                                                                                                  Score 62; DB 4; Length 91;
Pred. No. 4.61e-01;
3; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CUMMINGS D.J., DOMENICO J.M., MICHEL F.;
"DNA sequence and organization of the mitochondrial ND1 gradospora anserina: analysis of alternate splice sites.";
CURR. GENET. 14:253-264 [1988].
                                    SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                  LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                       CF404FAD CRC32;
                                                                         PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                  POTENTIAL.
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                                                                                                                                                                                                                                                                                                                                       CREATED)
                                                                                                                                                                                                                                                                                                              PRT;
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                                                                                                           1 23
24 91
91 AA; 9990 MW;
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08,
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                                                                                                                                                                     60.88;
                                                   EMBL; AF043341; G2905632;
EMBL; AF088219; G3719366;
                                                                                                                                                                                              Conservative
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01-NOV-1998 (TREMBLREL.
                                                                                                                                                                                                                     71 QVCANPEKKWVR 82
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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NOMIYAMA H.;
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Q36474;
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CUMMINGS D.J., MICHEL F., MCNALLY K.L.;
"DNA sequence analysis of the 24.5 kilobase pair cytochrome oxidase subunit I mitochondrial gene from Podospora anserina: a gene with
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MEDLINE; 96074534.
PENG Q., ZENG M., BHUIYAN Z.A., UBUKATA E., TANAKA A., NONOYAMA M.,
SHIRAZI Y.;
"Isolation and characterization of Marek's disease virus (MDV) cDNAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIINE; 90291512.
CUMMINGS D.J., MCNRLLY K.L., DOMENICO J.M., MATSUURA E.T.;
"The complete DNA sequence of the mitochondrial genome of Podospora
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
CUMMINGS D.J., MACNEIL I.A., DOWENICO J., MATSUURA E.T.,

"Excision-amplification of mitochondrial DNA during senescence in
"Alsomids" ". Experima. DNA sequence analysis of three unique
                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 90204556.
CUMMINGS D.J., MICHEL F., DOMENICO J.M., MCNALLY K.L.;
Whitochondrial DNA sequence analysis of the cytochrome oxidase subunit II gene from Podospora anserina. A group IA intron with a putative alternative splice site.";
J. MOL. BIOL. 212:287-294(1990).
                                                                                                                                                                                                                                                                                                                     CUMMINGS D.T., MICHEL F., DOMENICO J.M., MCNALLY K.L.; "DNA sequence analysis of the mitochondrial ND4L-ND5 gene complex from Podospora anserina. Duplication of the ND4L gene within its
                                                                                                            CUMMINGS D.J., MICHEL F., MCNALLY K.L.;
"DNA sequence analysis of the apocytochrome b gene of Podospora anserina: a new family of intronic open reading frame.";
CURR. GENET. 16:407-418(1989).
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Pred. No. 4.61e-01;
1; Mismatches 2; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
ALPHAHERPESVIRINAE; VARICELLOVIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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                                                     MOL. BIOL. 185:659-680(1985).
                                                                                                                                                                                                                                                                                                                                                                          J. MOL. BIOL. 212:269-286(1990).
                                                                                                                                                                                                                                                                CURR. GENET. 16:381-406(1989).
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EMBL; X55026; G578922; -
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01-NOV-1996 (TREMBLREL. 01,
01-NOV-1998 (TREMBLREL. 08,
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70.0%;
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GALLID HERPESVIRUS TYPE 1
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                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. MEDLINE; 90204555.
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                                                                                                 MEDLINE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
SUCHSTON M., ANDREWS S., BRINKMAN R., COOPER J., DING H., DU Z.,
PAVELLO A., FULTON L., GATTUNG S., GRECO T., KIRSTEN J., KUCABA T.,
HALLSWORTH K., HAWKINS J., HILLIER L., JIER M., JOHNSON D.,
JOHNSTON L., LANGSTON Y., LATREILLE P., LE T., MARDIS E., MENEZES S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
mapping to the BamHI-12, BamHI-Q2, and BamHI-L fragments of the MDV genome from lymphoblastoid cells transformed and persistently infected with MDV."; viroLogy 213:590-599(1995).
EMBL; U34966; G1185444; -.
PPRM; PF00048; i18; i1.
                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SACCHAROMYCES CEREVISIAE (BAKER'S YEAST).
EURARYOTA; FUNCI; ASCOMYCOTA; HEMIASCOMYCETES; SACCHAROMYCETALES;
SACCHAROMYCETACEAE; SACCHAROMYCES.
                                                                                                                                                                                                                                                                                                                                                                          LESSLAUER W.;
"A novel rat Cc chemokine, identified by targeted differential display, is upregulated in brain inflammation.";
J. NEUROIMMUNOL. 0:0-0(1998).
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                                                                                                                             3; Indels 0;
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UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 61; DB 11; Length 97;
Pred. No. 7.30e-01;
2; Mismatches 2; Indels
                                                                                                       Score 62; DB 14; Length 203;
Pred. No. 4.61e-01;
2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBNITIED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL, AFO53313, G3551819; -.
EMBL; AJ007862; E1312757; -.
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01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                         01-NOV-1998 (TREMBLREL. 08, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
CC CHEMOKINE ST38 PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHEMOKINE ST38.
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                                                                                 SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;
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CHAIN 28 97
SEQUENCE 97 AA; 10826 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 59.8%;
Best Local Similarity 60.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CHROMOSOME IV COSMID 9740.
                                                                                                           60.8%;
Local Similarity 54.5%;
hes 6; Conservative
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                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                                                                                                                                                                                                                       MUS MUSCULUS (MOUSE).
                                                                                                                                                       145 VCVDPEAPWVQ 155
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                                                                                                                                                                              2 VCIDPKLKWIQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 VCIDPKLKWI 11
                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                             VILLARES R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  T 14
Q06640
                                                                                                               Query Match
                                                                                                                                                                                                                 LT 13
089093
089093;
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.

ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRWANN J., MASON T.M.,

ADAMS M.D., LOFTUS B.J., KERLAYGE A.R., VENTER J.C.;

BRANDON R., KIM U.J., KERLAYGE A.R., VENTER J.C.;

"Homo sapiens Chromosome 16 BAC clone CIT987SK-A-152E5.";

SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.

EMBL; U832171; G1931881; -

EMBL; AC004382; G3254425; -

EMBL, AC004382; G325820; -

PFAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHANG M.S., MCNINCH J., ELIAS III C., MANTHEY C.L., GROSSHANS MENG T., BOONE T., ANDREW D.P., SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
MILLER N., NHAN M., PAULEY A., PELUSO D., RIFKEN L., RILES L.,
TAICH A., TREVASKIS E., VIGNATI D., WILCOX L., WOHLDMAN P., VP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
GODISKA R., CHANTRY D., RAPORT C.J., SOZZANI S., ALLAVENA P.
MANTOVANI A., GRAY P.W.;
J. RXP. MED. 185:0-0(0).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POTENTIAL. MACROPHAGE-DERIVED CHEMOKINE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 59; DB 4; Length 93;
Pred. No. 1.81e+00;
5; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 478;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2; Indels
                                                                                                                                                                                                                                                                                                                             JIA Y., CHERRY J.M.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL: U28374; G849223;
                                                   WILSON R., WATERSTON R.;
SUBMITTED (JUN-1995) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                            SUBMITTED (JUN-1995) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                  WATERSTON R.;
SUBMITTED (JUN-1995) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          000626;
01-JUL-1997 (TREMBLREL: 04, CREATED)
01-JUL-1997 (TREMBLREL: 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL: 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                       58.8%; Score 60; DB 3; Lt
55.6%; Pred. No. 1.15e+00;
ative 2; Mismatches 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        93 AA; 10580 MW; 65EA63D2 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                             478 AA; 54436 MW; 380C8ED7 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MACROPHAGE-DERIVED CHEMOKINE PRECURSOR.
MDC OR A-152E5.1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
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36.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity 36.4%;
les 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 55.6%;
les 5; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             445 ICVSPKLGW 453
                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2 VCIDPKLKW 10
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                                                                                                                                 SEQUENCE FROM N.A.
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                                                               WILSON R.
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Search completed: Fri Feb 4 17:05:18 2000 Job time : 56 secs.

US-09-150-813-38.rspt

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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 17:10:08 2000; MasPar time 5.11 Seconds 128.223 Million cell updates/sec

Tabular output not generated. Run on:

>US-09-150-813-40 (1-12) from US09150813.pep 99 1 ELCLDPKENWVQ 12 Description: Perfect Score: Sequence:

PAM 150 Gap 15 Scoring table:

179066 seqs, 54579741 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

1:sp_archea 2:sp_bacteria 3:sp_fungi 4:sp_human 1:sp_archebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle 9:sp_phage 10:sp_plant 11:sp_rodent 12:sp_unclassified 13:sp_vertebrate 14:sp_virus sptremb19 Database:

Mean 25.761; Variance 34.141; scale 0.755 Statistics:

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Pred. No.	1.31e-04	2.88e-03	2 880-03		4.7/e-U3	4.7/e-03	1.29e-02	1.29e-02	2.11e-02	5.60e-02	9.07e-02	9.07e-02	2.34e-01	2 34P-01	20000	2.04E-01	3.75e-01	5.90e-01	9.44e-UI	9.44e-01	9.44e-01	1 496+00)) 1
	Description	BETA CHEMOKINE EXODUS-	- EXODUS-	LACENCE DESCRIPTION OF THE	SMALL INDUCIBLE CITORI	FRACTALKINE.	NEUROTACTIN.	INTERLEUKIN-8 (FRAGMEN	IL-10-INDUCIBLE CHEMOK	MPIF-2.	LD78 ALPHA BETA PRECUR	CC CHEMOKINE ST38 PREC	K60 PROTEIN PRECURSOR.	CYSC CHEMOKINE PRECURS	-1-ENAGORGO LOVOCATAGE L	I-AMINOCICEOFROFANE	1-AMINOCYCLOPROPANE 1-	PUTATIVE DISEASE RESIS	CONSERVED HYPOTHETICAL	CC CHEMOKINE ABCD-1.	LFCA-1 PROTEIN PRECURS	CXC CHEMOKINE PRECURSO	SORGING MITHOREOGRAM	LIMPHOIACIAM FACCASCO
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	ength	121	* 6	133	133	395	395	97	120	119	6	200		1 1	765	455	477	158	176	92	101	10	101	97
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73 ELCADPKELWVQ 84 ||| ||| ||| ||| 1 ELCLDPKENWVQ 12

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1.49e+00	1.496+00	000	2.346.00	7.34e+00	2.34e+00	2.34e+00	2.34e+00	2 650+00	0000	•		3.65e+00	3.65e+00		٠	5.556+00	2.66e+00	550+00		5.00e+00	2.66e+00	5.66e+00	5,660+00	1000	5.55e+00	5.66e+00	5.66e+00	2 660+00	•	•
MITTY HOMOLOG.	CATTE COMPANDE CL.II	ECEP 101	ORF K6.	B LYMPHOCYTE CHEMOATTR	ECO O PROTEIN (FRAGMEN	CEDINE RICH PROTEIN HO	C-ddy Edge	FAST MIDE C.	CHEMOKINE EXODUS.	CC CHEMOKINE EXODUS.	1-AMINOCYCLOPROPANE-CA	NONSTRUCTURAL PROTEIN	DATA DOLVMERACE	KINA POLIMENADE:	1-AMINOCYCLOPROPANE-I-	MACROPHAGE-DERIVED CHE	ACTED TOWNET 60-1		PHZG.	1-AMINOCYCLOPROPANE-I-	DISEASE RESISTANCE PRO	TYP KINASE ALPHA SUBUN			SIMILAR TO RPS-2 DISEA	т1 Р9. 20.	1 4000	-		KIAAUZ92 (FRAGMENI).
015830	2000	90	098158	055038	067634		06770	Q14374	099664	P97884	042917	080078	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	085431	041694	000626	2 V C C C C	04/790	069755	043813	023317	2777	000#10	015111	022728	087430	7 100	0.20195	\sim	014528
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0	07.0	59.0	78.6		0 0	0.0	58.6	58.6	57.6	57.6			0.70	57.6	56.6			56.6	56.6	, v		0.00	26.6	56.6	9			56.6	56.6	9.99
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;	77	22	23	9 6	47	52	56	27	20	9 0	7 (0	31	32	77	7	34	32	36	7 (200	38	38	40	7 -	→	42	43	44	45

ALIGNMENTS

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		PRIMATES;				s,	Gaps
				kine		AKAGI	0;
		BETA CHEMOKINE EXODUS-2. HOMO SAPIENS (HUMAN). EUKARYOTA; METAZOA: CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; CAPARRHINI; HOMINIDAE; HOMO.	H	a novel beta chemokine	Š.	4 1 1 1 1 1 1 1 1 1	9 CRC32; DB 4; Length 134; 1.31e-04; tches 2; Indels
	ATE) PDATE)	MALIA;	BROXMEYER H.; DATA BANKS.	el beta	SEQUENCE FROM N.A. HEDRICK J.A., ZLOTNIK A.; SIBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS	RIDANPAA FE O.; FA BANKS	2; Lengt 04; 2;]
134 AA.	E UPDA	; MAM		a nov	3J DA1	YOSH YOSH BJ DAY	CKUS DB 4; .31e- ches
134	ED) SEQUENCE UPDATE) ANNOTATION UPDAT	BRATA	FE K.		NK/DD!	USUDA A H., NK/DDI	FE86A239 CRC32; re 78; DB 4; d. No. 1.31e-04 Mismatches
PRT;	CREATED) LAST SEQUENCE UPDATE) LAST ANNOTATION UPDATE)	VERTE	[1] SEQUENCE FROM N.A. HROMAS R.A., GRAY P., KLEMSZ M., FIFE K., SCHMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ	SEQUENCE FROM N.A. MEDLINE, 97400322. HEDRICK T.A., ZLOTNIK A.; "Identification and characterization of containing six conserved cysteines."; J. IMMUNOL. 159:1589-1593(1997).	/GENBA	EU-1 SEQUENCE FROM N.A. NAGIRA M., IMAI T., HIESHINA K., KUSUDA J., RIDANP- NAGIRA M., RAKIZAKI M., NOMIYAMA H., YOSHIE O.; SUBMITTED (AGG-1997) TO EMBL/GENBANK/DDBJ DATA BAN EMBL, AR01979; GA524925; EMBL, ABO012409; D1022673; EMBL, PF00048; il8; l.	MW; FE86A239 CKC32; Score 78; DB 4; L Pred. No: 1.31e-04; O; Mismatches 2
••	04, 04, 08,	RDATA.	LEMSZ EMBL	A.; aracte ed cys 593(19	A.; O EMBI	ESHIMA M., N O EMBI ; 25; 73;	
INARY	(TREMBLREL. (TREMBLREL. (TREMBLREL.	DUS-2 NN). A; CHO	P., K	INIK P nd cha nserve 589-19	TNIK 1 97) TO	.A. T., HIESH. AKIZAKI M. 1997) TO El 2196920; G2624925; D1022673; ill8; 1.	τ.
PRELIMINARY;	(TREMBLREL. (TREMBLREL. (TREMBLREL.	NE EXC (HUMZ (ETAZO) HOMIN	M N.A GRAY TUN-19	EQUENCE FROM N.A. EDLINE; 97400322. EDRICK J.A., ZLOTNIK A.; Identification and characteriza ontaining six conserved cystein munuoL. 159:1589-1593(1997).	[3] SEQUENCE FROM N.A. HEDRICK J.A., ZLOT SUBMITTED (MAY-199	SEQUENCE FROM N.A. NAGIRA M., IMAI T. NISHIMURA M., KAKI SUBMITTED (AGG-199) EMBL, AF001979; G2	134 AA; nilarity Conse:
	1997 1997 1998	HEMOKI APIENS OTA; M	CE FRC R.A., TED (J	CE FRC E; 974 K J.A. ificat ning s	CE FR K J.A TED (1	ICE FROM N. M., IMAI URA M., KA TED (AUG-1 U88320; G2 AF001979; AB002409; PF00048; i	NCE 1 Ech al Sim
000585	01-JUL-1997 01-JUL-1997 01-JUL-1997 01-NOV-1998	BETA CHEMOKINE EXODUS-2. HOMO SAPIENS (HUMAN). EUKARYOTA; METAZOA; CHORDATA CATARRHINI; HOMINIDAE; HOMO.	[1] SEQUENCE FROM N.A. HROMAS R.A., GRAY P., SUBMITTED (JUN-1997) 1	SEQUENCE FROM N.A. MEDLINE, 97400322. "Identification and chara containing six conserved y. IMMUNOL. 159:1589-1593	[3] SEQUENCE FROM N.A. HEDRICK J.A., ZLOTNIK A.; SUBMITTED (MAY-1997) TO E	SEQUEN NAGIRA NISHIM SUBMII EMBL; EMBL; EMBL;	SEQUENCE 134 AA; Query Match Best Local Similarity Matches 10; Consei
SUL	See Fig		RA RA RL		R R B B B	R R R R R R R R R R R R R R R R R R R	SQ Que Be:

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                                                                                                  MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A., COLLINS-FACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E., SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                           HROMAS R., KIMC C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COOPER S., SCHNIZLEIN-BICK C., BROXMEYER H.E., "Isolation and characterization of Exodus-2, a novel C-c chemokine with a unique 37-amino acid carboxyl-terminal extension.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HEDRICK J.A., ZLOTNIK A.;
"Identification and characterization of a novel beta chemokine containing six conserved cysteines.";
J. IMMUNOL. 159:1589-1593(1997).
                                                                                                                                                                                                                                                                                                                                                                                                 Score 72; DB 11; Length 133;
Pred. No. 2.88e-03;
1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                              EMBL; U88322; G3169697; -...
MGD: MGI:1097677; SCIA21.
PFAM; PF00048; 118; 1.
SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;
                                                 01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
BETA CHEMOKINE EXODUS-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EDUENCE FROM N.A.
HEDRICK J.A., ZLOTNIK A.;
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL, AFOOGO189; --
EMBL; AFOOTO180; G25624977; --
MGD; MI:1097677; SCYA21.
PFAM; PFOOO48; il8; 1.
SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUL-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOY-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
SMALL INDUCIBLE CYTOKINE A21 (TCA4).
                   133 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        133 AA.
                                      01-JUL-1997 (TREMBLREL. 04, CREATED)
                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                   Y Match 72.7%;
Local Similarity 66.7%;
hes 8; Conservative
               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ||| :| | |||
| ELCLDPKENWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MUS MUSCULUS (MOUSE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                   73 ELCANPEEGWVQ 84
                                                                                                                                                                        TISSUE-TOTAL FETUS;
                                                                                                                                                                                                                                                                                         TISSUE=TOTAL FETUS;
                                                                                                                                                                                    MEDLINE; 97444139.
                                                                                                                                                        SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FISSUE-THYMUS;
                                                                                                                                                                                                                                                                                                   HROMAS R.A.;
 LT 2
009006
009006;
                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
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009002
009002;
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RESULT
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                                                                                                                                                                                                                                                                                                                                                                                        MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MUS MUSCULUS (MOUSE).
EUKARYOTA, METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
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                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
MEDLINE; 97320499.
MEDLINE; 97320499.
PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J.,
GUSSELIN M., MA J., DUSSAULT B., WOOLF B., ALPERIN A., CULPEPPER J.,
GUTIERREZ-RAMOS J.C., GERRING D.;
"Neurotactin, a membrane-anchored chemokine upregulated in brain
inflammary."
inflammary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
STRAIN-BALB/C; TISSUE-BRAIN;
ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
ZLOTINK A., BAZAN J.F.;
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U92565; G242677; -..
PFAM; PF00048; 118; 1.
SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ô
     Score 72; DB 11; Length 133;
Pred. No. 2.88e-03;
1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Match 71.7%; Score 71; DB 11; Length 395; Local Similarity 72.7%; Pred. No. 4.77e-03; es 8; Conservative 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 395;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 71; DB 11; Length 395
Pred. No. 4.77e-03;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                           LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                             395 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            395 AA.
                                                                                                                                                                                                                                                                                       01-07A'-1998 (TREMBLREL. 05, CREATED)
01-07AN-1998 (TREMBLREL. 05, LAST SEQI
01-NOV-1998 (TREMBLREL. 08, LAST ANN
                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-JAN-1998 (TREMBLREL. 05, CREATED)
01-JAN-1998 (TREMBLREL. 05, LAST SEQ
01-NOV-1998 (TREMBLREL. 08, LAST ANN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
Ouery Match 72.7%;
Best Local Similarity 66.7%;
                                                      8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Match 71.7%;
Local Similarity 72.7%;
les 8; Conservative
                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                             73 ELCANPEEGWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73 FCADPKEKWVQ 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 LCLDPKENWVQ 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FRACTALKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NEUROTACTIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                           JT 4
035933
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         035188;
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035188
                                                    Matches
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Isolation and characterization of LMC, a novel lymphocyte and monocyte chemoattractant human CC chemokine, with myelosuppressive activity."

BLOCHEN BLOCHEN BLOCHEN 247:217-222(1998).

EMBL; ABO07454: D1024963; --

EMBL; ABO07454: D1024965; --

EMBL; APO55667; G3395776; --

EMBL; PF00048; il8: 1.
                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
HANGOC G., KWON B.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SHOODALK, HIESHIMA K., FUKUDA S., IIO M., MIURA R., IMAI T., SHOODALK, NOMIYAMA H.; BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Structure of a region of 181 kb containing five CC chemokine
                                                                                                                                                                                                                                                                       ;
0
                                                                                            EGUUS CABALLUS (HORSE).
EUKRAYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PERISSODACTYLA; EQUIDAE; EQUUS.
                                                                                                                                                                                                                                             Score 69; DB 6; Length 97; Pred. No. 1.29e-02; 3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
HEDRICK J.A., HELMS A., GORWAN D., ZLOTNIK A.;
SUBMITTED (NOV-1997) TO EMBL/GENBANK/DOBJ DATA BANKS.
                                                                                                                                                                           SUBMITTED (APR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF062377; G3126973; -..
NON_TER 97
                                                                                                                                                                                                                                                                                                                                                                                                   01-JAN-1998 (TREMBLREL. 05, CREATED)
01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
1L-10-INDUCIBLE CHEMORINE.
                                      01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
INTERLEUKIN-8 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120 AA; 13600 MW; A079DF66 CRC32;
                                                                                                                                                                                                                        SEQUENCE 97 AA; 10742 MW; 00396FBF CRC32;
     97 AA.
                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                              01-AUG-1998 (TREMBLREL. 07, CREATED)
        PRT;
                                                                                                                                              SEQUENCE FROM N.A.
TISSUE-BRONCHOALVEOLAR TISSUE:
FRANCHINI M.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 58.3%;
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                              1 ELCLDPKENWVO 12
                                                                                                                                                                                                                                                                                                        75 EVCLNPHTKWVQ 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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SEQUENCE
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LT 6
062812
062812;
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EUKRYCTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
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                                                                                                                                                                                                           EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Gaps
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                         Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                 ô
                                                                                                                                                                                                                                                               LAGUENCE FROM N.A.
PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
PATEL V.P., RREIDER B.L., LI Y., LI HOTAKURA R., PARMELEE D.,
NARDDELLI B., TPPALLA V., GENTZ S., THOTAKURA R.,
J. EXP., GAROTTA G.,
J. EXP., MED. 0.0-0(0).
EMBL; U85768; G1916252; -
PEMA, PE00048; II8; 1.
PEMA, PE00048: 118; 1.
SEQUENCE 119 AA; 13119 MM; CDF526F0 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 80;
                                                                                                                                                                                                                                                                                                                                                                      68.7%; Score 68; DB 4; Length 119; 58.3%; Pred. No. 2.11e-02; Ative 4; Mismatches 1; Indels
Score 69; DB 4; Length 120;
Pred. No. 1.29e-02;
5; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (AUG-1995) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; D63785; D1010501; -. PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. PPRAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-JAN-1999 (TREMBLREL. 09, LAST ANNOTATION UPDATE)
                                                                                                                                                      01-JUL-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 66; DB 4; Li
Pred. No. 5.60e-02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3; Mismatches
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                                                                                                                                 119 AA.
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                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8857 MW;
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58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7; Conservative
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les 7; Conservative
      Query Match
Best Local Similarity 50.0%;
Matches 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
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>80
80
                                                                                                                                    PRELIMINARY;
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                               1 ELCLDPKENWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                  72 QFCGDPKQEWVQ 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   80 AA;
                                                                                 1 ELCLDPKENWVO 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                          74 EVCTNPNDDWVQ 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NON_TER
SEQUENCE
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014745
014745;
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                                                                                                                          LT 8
000175
000175;
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MUS MUSCULUS (MOUSE),
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
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                                                                                                                                                                                                                                                                                                                                                                      Gaps
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                                                                                                                                                        LESSLAUER W.,
"A novel rat CC chemokine, identified by targeted differential display, is upregulated in brain inflammation.";
J. NEUROINMUNOL. 0:0-0(1998)
                                                                                                                                                                                                                                                                                                                                                                     ·,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
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                                                                                                                                               UTANS-SCHWEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUKRRYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
                                                                                                                                                                                                                                                                                                                                     Score 65; DB 11; Length 97;
Pred. No. 9.07e-02;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        65.7%; Score 65; DB 13; Length 104; 63.6%; Pred. No. 9.076-02; rative 1; Mismatches 3; Indels
                               01-NOV-1998 (TREMBLREL. 08, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
CC CHEMOKINE ST38 PRECURSOR.
                                                                                                                                                                                                                                       SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS EMBL, AJ007862: E1312757;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SICK C.;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; Y14971; E1295103; .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
(TREMBLREL. 07, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                         CHEMOKINE ST38.
                   97 AA.
                                                                                                                                                                                                                                                                                                               053405BD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE 104 AA: 11199 MW; 40C2EF8A CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      104 AA.
                                                                                                                                                                                                                                                                                         POTENTIAL.
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                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-AUG-1998 (TREMBLREL. 07, CREATED)
01-AUG-1998 (TREMBLREL. 07, LAST SEC
                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                       1 27 1
28 97
97 AA; 10826 MW;
                                                                                                                                                                                                                                                                                                                                     Match
Local Similarity 70.0%;
Les 7; Conservative
              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GALLUS GALLUS (CHICKEN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
TISSUE-MACROPHAGE LIKE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     K60 PROTEIN PRECURSOR
                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                             74 VCADPKQNWV 83
                                                                                                                                                                                                                                                                                                                                                                                           2 LCLDPKENWV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   75 EVCLDPTAPWV 85
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                                                                                                                                                                                                                               VILLARES R.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-AUG-1998
                                                                                                                                                                                                                                                                                                             SEQUENCE
 5T 10
089093
                                                                                                                                                                                                                                                                                                                                  Query Match
                       089093;
                                                                                                                                                                                                                                                                                                                                                                                                                                    LT 11
073912
073912;
                                                                                                                                                                                                                                                                                     SIGNAL
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P78423
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RESULT
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         RESULT
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397 AA.

PRELIMINARY;

P78423; 000672;

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HOMO SAPIENS (HUMAN).
BUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRWANN J., MASON T.M., BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C., Home sapiens Chromosome 16 BAC clone CIT9875K-A-152E5.", EMBL; U91835; G1899259; EMBL/CENBANK/DDBJ DATA BANKS.

EMBL; U91835; G1898223; EMBL/GENBANK/DDBJ DATA BANKS.

EMBL; MG4487; G188823; EMBL; G188823; EMBL; MG44881; G188; G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN=NORLAND; TISSUE=LEAVES;
MEDLINE; 9336794.
SCHLAGNHAUFER C.D., GLICK R.E., ARTECA R.N., PELL E.J.;
"Expression of the CMS-associated urfs sequence in transgenic petunia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-NOV-1996 (TREMBLREL. 09, LAST SEQUENCE UPDATE)
1-AMINOCYCLOPROPANE-1-CARBOXYLATE SYNTHASE (EC 4.4.1.14)
80LANUM TUBEROSUM (POTATO).
80LANUM TUBEROSUM (POTATO).
80LANUM TUBEROSUM (STREPTOPHYTA; EMBRYOPHYTA; TRACHEOPHYTA; EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA; EUDICOTYLEDONS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIANT MOL. BIOL. 28:83-92(1995).
-!- CATALYTIC ACTIVITY: S-ADENOSYL-L-METHIONINE -
1-AMINOCYCLOPROPANE-1-CARBOXYLATE + METHYLITHIOADENOSINE.
-!- COFACTOR: PYRIDOXAL-PHOSPHATE.
-!- COFACTOR: PYRIDOXAL PHOSPHATE (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO CLASS-I OF PYRIDOXAL-PHOSPHATE-DEPENDENT
--- AMINORANGERASES.
                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
MEDLINE; 9117111.
BAZAN J.F., BACON K.B., HARDIMAN G., WANG W., SOO K., ROSSI D.,
GREAVES D.K., ZLOTNIK A., SCHALL T.J.;
"A new class of membrane-bound chemokine with a CX3C motif.";
NATURE 385:640-644(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 63; DB 4; Length 397;
Pred. No. 2.34e-01;
1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2; Indels
01-MAY-1997 (TREMBLREL. 03, CREATED)
01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
CX3C_CHEMOKINE PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL 1 24 POTENTIAL.
CHAIN 25 397 CX3C CHEMOKINE.
SEQUENCE 397 AA; 42202 MW; C8093D7D CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     455 AA; 51509 MW; 2C65C534 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
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Local Similarity 70.0%;
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Q43168
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Poletion of the carboxyl-terminal region of
1-aminocyclopropane-1-carboxylic acid synthase, a key protein in the
biosynthesis of ethylene, results in catalytically hyperactive,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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EUKARYOTA: VIRIDIPLANTAE; STREPTOPHYTA; EMBRYOPHYTA; TRACHEOPHYTA;
EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA; EUDICOTYLEDONS;
ASTERIDAE; SOLANANAE; SOLANALES; SOLANACEAE; SOLANUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 92196141.
MEDLINE; 92196141.
MEDLINE; MORE T., YANG S.F.;
"Differential accumulation of transcripts for four tomato
"Differential accumulation of transcripts for four tomato
"Differential accumulation of transcripts for four tomato
"Differential accumulation of transcripts for four tomatous
conditions.";
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Pred. No. 2.34e-01;
3; Mismatches 2; Indels
                                                                                                                                                                                       01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
01-JAN-1999 (TREMBLREL. 09, LAST ANNOTATION UPDATE)
1-AMINOCYCLOPROPANE 1-CARBOXYLATE SYNTHASE (EC 4.4.1.14)
(1-AMINOCYCLOPROPANE-1-CARBOXYLATE SYNTHASE) (ACC SYNTHASE)
Score 63; DB 10; Length 455;
Pred. No. 2.34e-01;
3; Mismatches 2; Indels
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01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANOUTATION UPDATE)
PUTATIVE DISEASE RESISTANCE PROTEIN (FRAGMENT).
ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE 477 AA; 53784 MW; 6997FD75 CRC32;
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                                                                                                                                                 477 AA.
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EMBL, M83318; G867990; -.
PROSITE; PS00105; AA_TRANSFER_CLASS_1; 1.
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                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
STRAIN-CV. PIKRED; TISSUE-PERICARP;
MEDLINE; 94165094.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          J. BIOL. CHEM. 269:6908-6917(1994).
                                                                                                                                                    PRT;
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MENDEL; 15548; LYCes; Acs; mn15548.
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Best Local Similarity 54.5%;
Matches 6; Conservative
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       Ouery Match
Best Local Similarity 54.5%;
Matches 6; Conservative
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1 ELCLDPKENWV 11
                                                                 26 QLCLDLIEDWI 36
                                                                                     monomeric enzyme
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064975
064975;
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EUKARXOTA; VIRIDIPLANTAE; STREPTOPHYTA; EMBRYOPHYTA; TRACHEOPHYTA;
EUPHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA; EUDICOTYLEDONS; ROSIDAE;
CAPPARALES; BRASSICACEAE; ARABIDOPSIS.
                                                                                                                                       "Identification of R-gene homologous DNA fragments genetically linked to disease resistance loci in Arabidopais thaliana.";
MOL. PLANT MICROBE INTERACT. 11:251-258(1998).
EMBL, AF039381; G3075472; -.
                                                                                                                                                                                                                                                                                                      Gaps
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                                                                                                       AARTS M.G., TE LINTEL HEKKERT B., HOLUB E.B., BEYNON J.L.,
STIEKEMA W.J., PEREIRA A.;
                                                                                                                                                                                                                                                                      Length 158;
                                                                                                                                                                                                                                                                    Match 62.6%; Score 62; DB 10; Length 158 Local Similarity 62.5%; Pred. No. 3.75e-01; Locals 5; Conservative 2; Mismatches 1; Indels Les
                                                                                                                                                                                                                                          158 AA; 18235 MW; 12D846C9 CRC32;
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                                                                      SEQUENCE FROM N.A. STRAIN=CV. LANDSBERG ERECTA; MEDLINE; 98191999.
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SEQUENCE
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5'-NUCLEOTIDASE (FRAGM PUTATIVE CYCLIC NUCLEO

096463 090729 P90696

344 14 452 10 772 14 772 14 282 10 103 4 1126 6 1316 6 1316 6 1317 6 1051 5 1051 5 1174 4 1187 4 1187 4 123 14 203 14 203 2 585 2

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T21H8.1.

COLLAGEN ALPHA 1(II) C TYPE II COLLAGEN (FRAG COLLAGEN TYPE IIA (FRA

011293 081811 064282 098211 075435 0922497 092292 018871 052292

HYPOTHETICAL 38.8 KD P PUTATIVE PHYTOCHELATIN INTERFERON INDUCIBLE P MC043L. CHROMODOMAIN-HELICASE- ORF10. PYROPHOSPHATE-DEPENDEN MYB4 TRANSCRIPTION FAC 2-ALPHA COLLAGEN (COLL NITRIC OXIDE SYNTHASE. NIEMANN-PICK C DISEASE ALPHA-1 TYPE II COLLAG

F1707.14 PROTEIN.

Q26055 Q26240 Q15118 Q14047 Q64604 Q67634

ECO O PROTEIN (FRAGMEN TRANSCRIPTION FACTOR. TRANJ. ATPASE ALPHA-SUBUNIT (

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protein - protein database search, using Smith-Waterman algorithm
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130.268 Million cell updates/sec
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5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle
9:sp_phage 10:sp_plant 11:sp_rodent 12:sp_unclassified
13:sp_vertebrate 14:sp_virus
                                                                                                                                                                                  Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mean 24.746; Variance 30.425; scale 0.813
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Listing first 45 summaries
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(1-12) from US09150813.pep
92
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                                                                                                                                                                                                                                                                            Fri Feb 4 17:16:30 2000;
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Gap 15
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Perfect Score:
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ALIGNMENTS	1 1 PRELIMINARY; PRT; 101 AA.	01-NOV-1998 (TREMBLREL. 08, CREATED) 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE) 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)	LECA-1 PROTEIN PRECURSOR. LAMPETRA FUUYIAILIS (RIVER LAMPREY). LUKRAYOTA; KETAZOA: CHORDATA; VERTEBRATA; CEPHALASPIDOMORPHI; PETROMYZONTIFORMES; PETROMYZONTIDAE; LAMPETRA.	[1] SEQUENCE FROM N.A. SEQUENCE FROM N.A. IISSUE-LEUKCOTTES; NAJAKSHIN A.W.; MECHETINA L.V.; ALABYEV B.Y.; TARANIN A.V.; NAJAKSHIN A.W.; MECHETINA L.V.; ALABYEV B.Y.; TARANIN A.V.; "Identification of the interleukin 8 homologue in lamprey (Lampetra "Identification of the interleukin 8 homologue of chemokines."; "Intuiatilis): early evolutionary divergence of chemokines."; SUBMITTED (JUL.1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AJ231072; E1313821;	SIGNAL. 1 22 POTENTIAL. SIGNAL 1 21 101 LFCA-1 PROTEIN. SEQUENCE 101 AA; 11095 MW; E4A1E20F CRC32;	Query Match 69.6%; Score 64; DB 13; Length 101; Best Local Similarity 50.0%; Pred. No. 2.63e-02; Matches 6; Conservative 5; Mismatches 1; Indels 0; Gaps 0;	73 QICLNPDAPWVR 84 	O73912 PRELIMINARY; PRT; 104 AA. O73912 O73912 O73912 O173912 O173912 O1-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE) O1-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE) O1-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE) K60 PROTEIN PRECURSOR. K60. GALLUS GALLUS (CHICKEN) EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES; EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; PHASIANINAE; GALLUS. [1]
	M	AC DI 01 DI 01			FT FT SO	Query M Best Lo Matches	Db Vy	RESULT ID OO ID DI DI OO DI OO OO OO OO

Pred. No.

Description

Query Match Length DB

Score

Result

LFCA-1 PROTEIN PRECURS K60 PROTEIN PRECURSOR. MELANOMA GROWTH STIMUL

2.63e-02 2.63e-02 7.41e-02 7.41e-02 5.57e-01 5.57e-01 9.11e-01 9.11e-01 9.11e-01 1.48e+00 1.4

PERMEABILITY FACTOR 2
TYPE IIA PROCOLAGEN (
SELF-INCOMPATABILITY G
SELF-INCOMPATABILITY G
SELF-INCOMPATABILITY G
DOPAMINE DIB RECEPTOR.
HYPOTHETICAL 54.3 KD P
RO-ALPHA-1 TYPE II CO
PRO-ALPHA-1 TYPE II CO
PRO-ALPHA-1 TYPE II CO
DRO-ALPHA-1 TYPE II CO

042936 062033 062031 062032 090192

HYPOTHETICAL 48.6 KD P
PUTATIVE ADP-L-GLYCERO
OTF22-1 PROTEIN.
DNA FOR OTN REGION GEN
HYPOTHETICAL 25.8 KD P
SIMILARITY TO UDP-GLUC

073912 062764 06678 046678 006963 087143 057098 P73989 Q06321 Q28724 077753

113 113 110 110 111 111 111

6644 66623 66623 66663 66663 66663 66663 66663 66663 66663 66663 66663 66663 66663 66663 66

SEQUENCE FROM N.A.

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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; CAPRINAE; OVIS.
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PERISSODACTYLA; EQUIDAE; EQUUS.
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0
                                                                                                           Score 64; DB 13; Length 104;
Pred. No. 2.63e-02;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                          01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
MELANOMA GROWTH STIMULATORY ACTIVITY HOMOLOG (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                           Score 63; DB 6; Length 59;
Pred. No. 4.42e-02;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 58.3%; Pred. No. 7.41e-02;
Matches 7; Conservative 3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                    RIEDER S., CHECA-CORTES M.L., JOERG H., STRANZINGER G.; SUBMITTED (MAR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF053497; G3033533;
                             SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; Y14971; E1295103; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11.)
YOSHIMURA T., MODI W.S.;
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U95814; G2735499; -.
SEOUENCE 103 AA; 10820 MW; C34945B7 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUN-1998 (TREMBLREL. 06, CREATED)
01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
                                                                              K60 PROTEIN.
; 40C2EF8A CRC32;
                                                                                                                                                                                                                       59 AA.
                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE 59 AA; 6344 MW; OC5EA8CC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   103 AA.
                                                                   POTENTIAL.
                                                                                                                                                                                                                                  01-AUG-1998 (TREMBLREL. 07, CREATED)
                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                            SIGNAL 1 20 PC CHAIN 21 104 K( SEQUENCE 104 AA; 11199 MW;
                                                                                                          / Match
Local Similarity 66.7%;
les 8; Conservative
                                                                                                                                                                                                                                             01-AUG-1998 (TREMBLREL. 07, 01-AUG-1998 (TREMBLREL. 07,
                                                                                                                                                                                                                                                                                                                                                                                                                        Match
Local Similarity 66.7%;
les 8; Conservative
                                                                                                                                                                                                                  PRELIMINARY;
          TISSUE=MACROPHAGE LIKE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                        EQUUS CABALLUS (HORSE)
                                                                                                                                                 75 EVCLDPTAPWVK 86
                                                                                                                                                                     1 EICLDPEAPFLK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                              35 ETCLNPEAPMVK 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 EICLDPEAPFLK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            79 EVCLNPAAPMVK 90
                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                             TISSUE-SKIN;
                                                                                                         Query Match
                                                                                                                                                                                                                          062764;
                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                      LT 3
062764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       046678;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LT 4
046678
                                                                                                                              Matches
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                                                                                                                                                                                                     RESULT
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1 EICLDPEAPFLK 12

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STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MARATHE R., ARAVIND L., MITCHELL W.P., OLINGER L., TATUSOV R.L., ZHAO Q., KOONIN E.V.,
                                                                                                                                                                                                                                                                                                                                                                                                   STEPHENS R.S., KALMAN S., LAMMEL C.J., FAN J., MARATHE R., ARAVIND L., MITCHELL W.P., OLINGER L., TATUSOV R.L., ZHAO Q., KOONIN E.V.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 95309704.

MANNING P.A., STROEHER U.H., KARAGEORGOS L.E., MORONA R.;
ADMINING P.A., STROEHER U.H., KARAGEORGOS L.E., MORONA R.;
cholerae O.antigen transport genes within the rfb region of Vibrio GENE 158:1-7(1995).

1- FINCTION: BIOSYNTHESIS OF THE LIPOPOLYSACCHARIDE PRECURSOR ADP-L-GIYCEROL-D-MANNOHEPTOSE.

ADP-L-GIYCEROL-D-MANNOHEPTOSE.

ADP-L-GIYCEROL-D-MANNOHEPTOSE.
                                                                                                                                                                                                                                                                                     "Genome Sequence of an Obligate Intracellular Pathogen of Humans:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BACTERIA; PROTEOBACTERIA; GAMMA SUBDIVISION; VIBRIONACEAE; VIBRIO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOY-1996 (TREMBLREL. 01, CREATED)
01-NOY-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-NOY-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
PUTATIVE ADP-L-GLYCERO-D-MANNOHEPTOSE-6-EPIMERASE (EC 5.1.3.-).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- PATHWAY: LIPOPOLYSACCHARIDE CORE BIOSYNTHESIS.
EMBL; X59554; G48382;
HYPOTHETICAL PROTEIN; LIPOPOLYSACCHARIDE BIOSYNTHESIS; ISOMERASE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 67.4%; Score 62; DB 2; Length 427; Best Local Similarity 70.0%; Pred. No. 7.41e-02; Matches 7; Conservative 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN-0-17 / BIOTYPE EL TOR / SEROTYPE OGAWA;
MEDLINE; 92212870
STROEHER U.H., KARAGEORGOS L.E., MORONA R., MANNING P.A.;
"Serotype conversion in Vibrio cholerae Ol.";
PROC. NAIL. ACAD. SCI. U.S.A. 89:2566-2570(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUBMITTED (MAY-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AE001355; G3329295; -- HYPOTHETICAL PROTEIN.
                               01-NOV-1998 (TREMBLREL. 08, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
HYPOTHETICAL 48.6 KD PROTEIN.
                                                                                                                              CHLAMYDIA TRACHOMATIS.
BACTERIA; CHLAMYDIALES; CHLAMYDIACEAE; CHLAMYDIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       427 AA; 48583 MW; 249BBE61 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 17 ATP (POTENTIAL).
314 AA; 35244 MW; A4A1B324 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  314 AA.
        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
PRELIMINARY;
                                                                                                                                                                                                                                                                                                        Chlamydia trachomatis.";
SCIENCE 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     412 CLSPEASYLK 421
                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 CLDPEAPFLK 12
                                                                                                                                                                                                           STRAIN=D/UW-3/CX;
                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-D/UW-3/CX;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                084832:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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104 CLDREIPFL 112
                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                             3 CLDPEAPFL 11
                                                                                                                                                                                                                                       STRAIN-PCC6803;
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                  SEQUENCE
                                                                                                                                                                                                                                                 TABATA S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        006321;
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Q06321
                                                                                                                                     P73989
P73989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
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                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YAWASAKI S., SHIMIZU T., HOSHINO K., HO S., SHIMADA T., NAIR G.B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "The genes responsible for O-antigen synthesis of Vibrio cholerae 0139 are closely related to those of Vibrio cholerae 022."; SUBMITTED (APR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; X90547; E194949;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BACTERIA; PROTEOBACTERIA; GAMMA SUBDIVISION; VIBRIONACEAE; VIBRIO.
                                 Gaps
                                                                                                                                                                                                                                 YAMASAKI S., SHIMIZU T., HOSHINO K., HO S., SHIMADA T., NAIR G.B.,
                                                                                                                                                                                                                                                  "The genes responsible for O-antigen synthesis of Vibrio cholerae 0139 are closely related to those of Vibrio cholerae 022."; SUBMITTED (APR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AB012957; D1037474; ... SEQUENCE 314 AA; 35197 MW; BEAD8618 CRC32;
                                                                                                                                                                                          BACTERIA; PROTEOBACTERIA; GAMMA SUBDIVISION; VIBRIONACEAE; VIBRIO.
                                                                                                                                                                                                                                                                                                                                      .
0
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                                                                                                                                                                                                                                                                                                                   Length 314;
                                                                                                                                                                                                                                                                                                                                     2; Indels
           Score 58; DB 2; Length 314;
Pred. No. 5.57e-01;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VINONT S., DUMONTIER S., ESCUYER V., BERCHE P.; SUBMITTED (FEB-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
DNA FOR OTN REGION GENES.
RFAD OR OTF139-1.
                                                                                                                                           LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                 / Match 63.0%; Score 58; DB 2; Lk Local Similarity 77.8%; Pred. No. 5.57e-01; Conservative 0; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                     314 AA.
                                  0; Mismatches
                                                                                                                314 AA
                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                    CREATED)
                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOL. MICROBIOL. 20:799-811(1996).
                                                                                                                                     08,
                                                                                                                                              , 60
09,
              63.0%;
imilarity 77.8%;
7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                  PRELIMINARY;
                                                                                                                                     01-NOV-1998 (TREMBLREL.
                                                                                                                                               01-JAN-1999 (TREMBLREL.
01-JAN-1999 (TREMBLREL.
OTF22-1 PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                          Best Local Similarity Matches 7; Conserv
                                                                                                                                                                                                                                                                                                                                                              104 CLDREIPFL 112
                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                         104 CLDREIPFL 112
                                                                         3 CLDPEAPFL 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VIBRIO CHOLERAE
                                                                                                                                                                                       VIBRIO CHOLERAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=MO45;
                                                                                                                                                                                                                                STRAIN=022;
                                                                                                                                                                                                                                                                                                                       Query Match
                  Query Match
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057098
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                                                                                                                                                                                                                                                                                                                                           Matches
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MEDLINE; 97313267.
MEDLINE; 97313267.
MEDLINE; 97313267.
MEDLINE; 97313267.
MEDLINE; 97313267.
M. HILLIER L., RILES L., ALBERMANN K., ANDRE B., ANSORGE W., BENES V., BRUCKNER M., DELIUS H., DUGISLE, DUSTERHOFT A., ENTIN K.D., FLOGIN K., POSTEN H., HILLOER F., KLEINE K., KOTTER P., LOUIS E.J., MESSENGUY F., MEMES H.W., MIOSGA T., MOSTL D.,
                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 97061201.
KANEKO T., SATO S., KOTANI H., TANAKA A., ASAMIZU E., NAKAMURA Y.,
KANEKO T., SATO S., KOTANI H., SUGUINA M., SASAMOTO S., KIMURA T.,
MIYAJIWA N., HIROSAWA M., SUGUINA M., NAKAZAKI N., NARUO K., OKUMURA S.,
SHIMPO S., TAKEUCHI C., WADA T., WATANABE A., YAMADA M., YASUDA M.,
TABATA S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SACCHAROMYCES CEREVISIAE (BAKER'S YEAST).
EUKRYOTA: FUNGI; ASCOMYCOTA: HEMIASCOMYCETES; SACCHAROMYCETALES;
SACCHAROMYCETACEAE; SACCHAROMYCES.
                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 225;
                                                                                 Length 314;
                                                                                                                                 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                              SYNECHOCYSTIS SP. (STRAIN PCC 6803).
BACTERIA; CYANOBACTERIA; CHROCCOCCALES; SYNECHOCYSTIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBMITTED (JUN-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20.24.7.
01.NOV-1996 (TREMBLREL. 01, CREATED)
01.NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01.NOV-1996 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                             , LAST SEQUENCE UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 62.0%; Score 57; DB 2; Le
36.4%; Pred. No. 9.11e-01;
ative 6; Mismatches 1;
                                                                                    Score 58; DB 2; L4
Pred. No. 5.57e-01;
0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      225 AA; 25816 MW; 651089AA CRC32;
EMBL; U47542; G1381034; -.
EMBL; A8012956; D1034551; -.
SEOUBNCE 314 AA; 35184 MW; 285DABD8 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT; 1198 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY TO UDP-GLUCURONOSYLTRANSFERASES.
                                                                                                                                                                                                                                                                                                                   225 AA.
                                                                                                                                                                                                                                                                                                                                                                 01-FEB-1997 (TREMBLREL. 02, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                         01-FEB-1997 (TREMBLREL. 02, LA 01-JAN-1999 (TREMBLREL. 09, LA HYPOTHETICAL 25.8 KD PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 36.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4; Conservative
                                                                                             63.0%;
                                                                                                  Query Match
Best Local Similarity 77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                         7; Conservative
                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1998 (TREMBLREL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    48 QVCIDIDSPFI 58
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RESULT

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MULLER-AUER S., NENTWICH U., OBERWAIER B., PIRAVANDI E., POHL T.M., SCHARTELLE D., PURNELLE B., RECHMANN S., RIEGER M., RINKE M., ROSE M., SCHARER M., SCHERENS B., SCHOLLER P., SCHWAGER C., SCHWARZ S., UNDERWOOD A.P., URRESTARAZU L.A., VANDENBOL M., VERHASSELT P., VIERENDEELS F., VOET M., VOLCKAERT G., VOSS H., WAMBUTT R., WEDLER E., "The nucleotide sequence of Saccharomyces cerevisiae chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOHNSON M.C., GOODMAN R.B. II, KAJIKAWA O., WONG V.A., MONGOVIN S.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
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"Cloning of two rabbit GRO homologues and their expression in
alveolar acrophages.",
GENE 151:337-338(1994).
EMBL, L28933; 6455343; -
PROSITE; PSO4071; SMALL_CYTOKINES_CXC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ONYCTOLAGUS CUNICULUS (RABBIT).
EUKANYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
LAGOMORPHA; LEPORIDAE; ORYCTOLAGUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                Score 57; DB 3; Length 1198;
Pred. No. 9.11e-01;
3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 56; DB 6; Length 66;
Pred. No. 1.48e+00;
2; Mismatches 3; Indels
                                                                                                                                                                             SUBMITTED (NOV-1994) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                             SUBMITTED (NOV-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                               SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U17246; G577215; --
PFAM; PPE00169; PH; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                     1198 AA; 136053 MW; 9F764258 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       66 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  D4C4BC7D CRC32:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PERMEABILITY FACTOR 2 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                Match 62.0%;
Local Similarity 54.5%;
es 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            66 AA; 7102 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity 58.3%;
hes 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
STRAIN-NEW ZEALAND WHITE;
MEDLINE: 95129889.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                     SEQUENCE FROM N.A.
STRAIN-S288C (AB972);
WOHLDMANN P.;
                                                                                                                                                                                                      SEQUENCE FROM N.A.
STRAIN=S288C (AB972);
                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
STRAIN-S288C (AB972);
                                                                                                                                                                                                                                                                                                                                                                                                                                                 193 FCLDEQEPFLN 203
                                                                                                            NATURE 387:0-0(0).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2 ICLDPEAPFLK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         42 EACLNPAAPMVK 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ||:| || :|
| EICLDPEAPFLK 12
                                                                                                                                                                                                                                   WATERSTON R.;
                                                                                                                                                                                                                                                                                                   CHERRY J.M.;
                                                                                                                                                                                                                                                                                                                                                          TRANSFERASE.
                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LT 11
Q28724
                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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01-NOV-1998 (TREMBIREL. 08, LAST ANNOTATION UPDATE)
SILPO-1998 (FRAGMENT).
BUCKOPERSICON PERUVIANUM (PRUVIAN TOMATO).
BUCKARYOTA: VIRIDIPLANTAE, STREPTOPHYTA: EMBRYOPHYTA; TRACHEOPHYTA;
BUPHYLLOPHYTES; SPERMATOPHYTA: MAGNOLIOPHYTA; EUDICOTYLEDONS;
ASTERIDAE; SOLANANES; SOLANALES; SOLANACEAE; SOLANUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ROYO J., KUNZ C., KOWYAMA Y., ANDERSON M., NEWBIGIN E., CLARKE A., "Loss of a histidine residue at the active site of S-locus ribonuclease is associated with self-compatibility in Lycopersicon
                                                                                                                                                                      DU'F., ACLAND G.M., RAY J.; "Differential Expression of Type II Procollagen mRNA in Canine
                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                               CANIS FAMILIARIS (DOG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
CARNIVORA; FISSIPEDIA; CANIDAE; CANIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SELF-INCOMPATABILITY GLYCOPROTEIN (ALLELE S6).
182D7702 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ó.
                                                                                                                                                                                                                                                                                                                  Query Match 60.9%; Score 56; DB 6; Length 119; Best Local Similarity 75.0%; Pred. No. 1.48e+00; Matches 6; Conservative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 212;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 56; DB 10; Length 212
Pred. No. 1.48e+00;
1; Mismatches 1; Indels
                                                                                                                                                                                                                SUBMITTED (SEP-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF023169; G3687592; -.
PROSITE; PS01208; VWFC; 1.
                                                                           LAST ANNOTATION UPDATE)
                                                               LAST SEQUENCE UPDATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROC. NATL. ACAD. SCI. U.S.A. 91:6511-6514(1994).
EMBL; 226583; G404315; -
PFAM: PF00445; ribonuclease_T2; 1.
                                                                                                                                                                                                                                                                                        119 AA; 12413 MW; 619469D2 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         212 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             218 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POTENTIAL.
                                      01-NOV-1998 (TREMBLREL. 08, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQ
01-NOV-1998 (TREMBLREL. 08, LAST ANN
TYPE IIA PROCOLLAGEN (FRAGMENT).
                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQU
01-NOV-1998 (TREMBLREL. 08, LAST ANNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LT 14
040245 PRELIMINARY; PRT;
040245; 01-NOV-1996 (TREMBLREL. 01, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=STYLE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               212 AA; 24733 MW;
               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          larity 77.8%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                               119
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                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=LA 2163; TI:
MEDLINE; 94294411.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  184 ICLDPEAKY 192
                                                                                                                                                                                                                                                                                                                                                                             58 CLSPETPF 65
                                                                                                                                                                                                                                                                                                                                                                                                       3 CLDPEAPF 10
                                                                                                                                                                                                                                                                            119
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NON_TER
SEQUENCE
LT 12
077753
077753;
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040243;
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SIGNAL
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TELEOSTEI; ANGUILLIFORMES; ANGUILLIDAE; ANGUILLA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARDINAUD B., COUDOUGEL S., VINCENT J.D., VERNIER P.;
CARDINAUD B., COUDOUGEL S., VINCENT J.D., VERNIER P.;
CARDINAUD B., COUDOUGEL S., VINCENT J.D., VERNIER P.;
FEATJY emergence of three dopamine D1 receptor subtypes in
vertebrates, Molecular phylogenetic, pharmacological, and functional
criteria defining D1A, D1B, and D1C receptors in European eel
Anguilla anguilla...
J. BIOL. CHEM. 272:2778-2787(1997).
F. SUBCELLIGAR LOCATION: INTEGRAL MEMBRANE PROTEIN (BY SIMILARITY).
PROSITE: PSO0237; G_PROTEIN_RECEPTOR; 1.
PROSITE: PSO0237; T_L_1; 1.
PROSITE: COUPLED RECEPTOR; TRANSMEMBRANE; GLYCOPROTEIN.
SPROTEIN COUPLED RECEPTOR.
SEQUENCE 458 AA; 51941 MW; AFC9662D CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
               01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
SELF-INCOMPATABILITY GLYCOPROTEIN (NON- FUNCTIONAL ALLELE) PRECURSOR
                                                                                                                                                                SEQUENCE FROM N.A.
STRAIN=LA 2157; TISSUE=STYLE;
MEDLINE; 94294411.
ROYO J., KUNZ C., KOWYAMA Y., ANDERSON M., NEWBIGIN E., CLARKE A.;
ROYO J., ALSTIGINE residue at the active site of S-locus
"Loss of a histidine residue at the active site of S-locus
ribonuclease is associated with self-compatibility in Lycopersicon
                                                                LICOPERSICON PERUVIANUM (PERUVIAN TOMATO).

EUCOPERSICON PERUVIANUAE; STREPTOPHYTA; EMBRYOPHYTA; TRACHEOPHYTA; EUFHYLLOPHYTES; SPERMATOPHYTA; MAGNOLIOPHYTA; EUDICOTYLEDONS; ASTERIDAE; SOLANANAE; SOLANALES; SOLANACEAE; SOLANUM.
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SELF-INCOMPATABILITY GLYCOPROTEIN
SELF-INCOMPATABILITY GLYCOPROTEIN
(NON-FONCTIONAL ALLELE).
1 IEB4B4CB CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
60.9%; Score 56; DB 13; Length 458
Best Local Similarity 70.0%; Pred. No. 1.48e+00;
Matches 7; Conservative 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 218;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-FEB-1997 (TREMBLREL. 02, CREATED)
01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                  PROC. NATL. ACAD. SCI. U.S.A. 91:6511-6514(1994).
EMBL; 226581; G404334; -
PFAM; PF00445; ribonuclease_T2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 56; DB 10; I
Pred. No. 1.48e+00;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ANGUILLA ANGUILLA (EUROPEAN FRESHWATER EEL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT; 458 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Search completed: Fri Feb 4 17:17:30 2000 Job time : 60 secs.
                                                                                                                                                                                                                                                                                                                                                                                                                                     218 AA; 25384 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60.9%;
Similarity 77.8%;
7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOPAMINE DIB RECEPTOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    443 DICLDRLAPF 452
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1 EICLDPEAPF 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                190 ICLDPEAKY 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 ICLDPEAPF 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           97160583
                                                                                                                                                                                                                                                                              peruvianum.";
                                                             (FRAGMENT)
                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LT 15
Q98843
Q98843;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Fri Feb 4 17:28:08 2000; MasPar time 5.07 Seconds 129.163 Million cell updates/sec

Title: >US-09-150-813-43
Description: (1-12) from US09150813.pep
Parfect Score: 91
Sequence: 1 QVCADPSESWWQ 12

Tabular output not generated.

Scoring table: PAM 150 Gap 15 Searched: 179066 seqs, 54579741 residues

Post-processing: Minimum Match 0% Listing first 45 summaries Database: sptremb19 1:sp_archea 2:sp_bacteria 3:sp_fungi 4:sp_human 1:sp_archea 2:sp_bacteria 5:sp_nhve 8:sp_organelle 5:sp_invertebrate 6:sp_mammal 7:sp_mh 8:sp_organelle 9:sp_phage 10:sp_ant 11:sp_rodent 12:sp_unclassified 13:sp_vertebrate 14:sp_virus

Statistics: Mean 25.020; Variance 34.042; scale 0.735

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

		æ					
Result No.	Score	Query Match	Query Match Length DB	щ	QI	Description	Pred. No.
				; ;	014745	1.D78 ALPHA BETA PRECUR	1.64e-06
-	98	94.0	0 9	, .	11111	TI - 10 - THINITETE CHEMOK	8.65e-04
7	74	81.3	120	4	01546/		1 430-03
۳	73	80.2	95 1	4.	098158	ORF Kb.	20 400
· <	7.0	76.9	133 1	-	009002	SMALL INDUCIBLE CYTOKI	6.38e-03
* 4	7.0	7.07	133 1		900600	BETA CHEMOKINE EXODUS-	6.38e-U3
n (2 5	, , ,	134	4	000585	BETA CHEMOKINE EXODUS-	2.76e-02
1 0	00	70.00	704		035933	FRACTALKINE.	2.76e-02
` '	5	10.0	1 4 4 4		025188	NEUROTACTIN.	2.76e-02
Φ,	91	0 1	1 .		200000	OC CHEMOKINE ST38 PREC	4.47e-02
σ	99	77.3		4 :		NEDAGMEN APPAGMEN	4.47e-02
10	99	72.5		4	06/634	ECO Q PROTEIN (FIGURE	7 200-02
;	65	71.4		4	043646	RANTES PRECURSOR.	20.000.
1 -		71 4		4	000175	MPIF-2.	/.20e-02
7 7		70.3	56	4	099664	CHEMOKINE EXODUS.	1.15e-U1
7:				ď	046178	RADIAL SPOKEHEAD.	1.85e-U1
7 ₹		2.60) -	00 4000	OF CHEMOKINE ABCD-1.	2.94e-01
15	62	7 · 89		1	000430		7 010-01
16	62	68.1	. 76	14	098157	VMIP-1B.	0.010
1 -	20	68.1		17	P97884	CC CHEMOKINE EXODUS.	2.946-01
1 -	62	68.1	1	13	073912	K60 PROTEIN PRECURSOR.	7
9 6		67.0		4	000626	MACROPHAGE-DERIVED CHE	4.
100		67.0	108	11	070460	EBI-1 LIGAND CHEMOKINE	4.6/6-01
2							

4.67e-01	7.38e-01	7.38e-01	1.16e+00	1 826+00	000	1.82e+00	1.82e + 00	2.83e+00	2.836+00	300+00	00.00	0.7 etuo	6.77e+00	1 040+01	1000	TO 10 CT	1.59e+U1	1.59e+01		1000	1.39e+01	1.59e+U1	1.59e+0.1	2 410+01	101011	70-27-77	7.4Te+01	2.41e+01	2.41e+01	
OXC CHEMOKINE PRECURSO	LYMPHOTACTIN PRECURSOR	LECA-1 PROTEIN PRECURS	CAN CHEMOKINE PRECURS		CYTOKINE.	INTERLEUKIN-8 (FRAGMEN	VIF PROTEIN.	HYDOTHETICAL 57.1 KD P		÷	PROTEIN TYROSINE AINAS		HYPOTHETICAL 41.6 KD P	E CAMPA BOLL	FAST KINASE.	B LYMPHOCYTE CHEMOATTR	MITTY HOMOLOG.	NITHOUGHOUT AND PROPERTY	ENVELOPE GEICOLICATER	TOIDS, 3 PROTEIN.	RNA HELICASE.	TRANSITIN.	SIMILARITY TO EGF-LIKE	/ NIGHOOD INCHESTING	HYPOTHETICAL FROM	PUTATIVE EPIMERASE/DEH	PUTATIVE MONOCARBOXYLA	CHROMOSOME SEGREGATION	NIRTHORD C OUNCE	
700510	057411	C 7 7 8 0 0	44.00	F/84.43	090825	062812	189687	70000	900004	79/800	009132	049811	880090	0000	014296	055038	015830	0000	160560	P90956	062780	090831	97170	007700	053582	069128	015375	072240	7 6	59806d
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	0.70	0 0	60.6	64.8	63.7	7 2 2		63.7	9.79	62.6	61.5	V (1)	* •	60.4	59.3	58.2		28.2	58.2	58.2	0 85		9.0	28.2	57.1	57.1	57.1	- 1	2/.1	57.1
į	61	9	9	ტ ტ	ď	0 0	n i	n n	22	57	3	y Le	ה הו	52	54	'n	0 1	53	23	7,	ט ני	3 6	0	53	52	ı c	1 0	7 1	2.5	25
	21	7.7	23	24	יני	7 (97	2.7	28	29	30	2,5	3.1	32	33		40	3	36	2.0	. 0	0 0	3.9	40	4.1	1 (7 .	7.7	44	45

ALIGNMENTS

PRIMATES;		Gaps
EUTHERIA;	OHUCHI K., MIURA R. S.	Indels 0;
PRT; 80 AA. CREATED) LAST SEQUENCE UPDATE) LAST ANOTATION UPDATE) FRAGMENT). A; VERTEBRATA; MAMMALIA;	H.,	. Leng06; 1; PPDATE)
PRT; 80 AA. CREATED) LAST SEQUENCE UPDATE) LAST ANNOTATION UPDAT 'RAGMENT). 'Y VERTEBRATA; MAMMALI	SE K., NAKASHIM (', NOMIYAMA H., SENBANK/DDBJ DAT INES_CC; 1. POTENTIAL. LD78 ALPHA BETA. 3F87FIC6 CRC32;	86; DB 4 No. 1.64e Mismatches F: 120 AA F: 120 AA F: SEQUENCE (ANNOTATION
PRT; 01, CREATED) 01, LAST SEC 09, LAST AND	, NARUSE K., NAKASHIMA HMOTO Y., NOMIYAMA H., I EMBL/GENBANK/DDBJ DATA . CYTOKINES_CC; 1. POTENTIAL. LD78 ALPHA BETA. MW; 3F87FIC6 CRC32;	%; Score 86; %; Pred. No. e 0; Mism PRT; 05, CREATED) 05, LAST SEQ 08, LAST ANN
IINARY; 3LREL. 3LREL. 3LREL. RECURSC AN). A; CHOP	A-YI Y;' X;' 35) 7 10501 SMAI 8; 1 1; 1 88	94.5 Larity 91.7 Conservativ 55WVQ 76 ESWVQ 12 ESWVQ 12 RELIMINARY; (TREMBLREL. (TREMBLREL. (TREMBLREL. (TREMBLREL. (TREMBLREL. (TREMBLREL. (TREMBLREL. (TREMBLREL.
11745 014745 014745 01-17475 01-1767 01-107-1996 (TREMI 01-1767-1999 (TREMI 01-1767-1999 (TREMI 01-1767-1999 (TREMI 01-1767-1999 (TREMI 1000 SAPIENS (HUMI EDKARYOTA; METAZO CATARRHINI; HOMIN (1) SEQUENCE FROM N.A.	TISSUE-BRAIN; ISHIZUKA K., IGATA-YI RATGURAGI S., KIN Y., MIYAKAWA T.; SUBMITIED (AUG-1995) T. EWBL, D63785; D1010501 PROSITE; PS00472; SWAL, PFAM; PF0048; 118; 1. SIGNAL. SIGNAL. SIGNAL. SIGNAL. SIGNAL. CHIN NON_TER CHIN SIGNAL SIGNAL SIGNAL SIGNAL SIGNAL NON_TER SIGNAL SIGNAL SIGNAL NON_TER SIGNAL SIGNAL SIGNAL SIGNAL SIGNAL SIGNAL NON_TER SIGNAL SIGNAL SIGNAL SIGNAL SIGNAL SIGNAL NON_TER SIGNAL	Query Match Best Local Similarit Matches 11; Cons Db 65 QVCADPSEEWVC Dy 1 QVCADPSEEWVC Dy 1 QVCADPSESWVC DY 015467 DT 015467 D
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HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D., PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.; INUCLEOTIDE sequence of the Kaposi sarcoma-associated herpesvirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Gaps
                                                                                                                                                                                                                                                                                                                                    HANGOC G., KWON B.S.;
"Isolation and characterization of LMC, a novel lymphocyte and
monocyte chemoattractant human CC chemokine, with myelosuppressive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.; "Molecular mimicry of human cytokine and cytokine response pathway
                                                                                                                                                                                                                                                                                                        MEDLINE; 98308096.
YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
                                                                                                                                            SHOUDAI K., HIESHIMA K., FUKUDA S., IIO M., MIURA R., IMAI T., YOSHIE O., NOMIXAMA H.;
BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
                                                                                                                                                                                                                                  Structure of a region of 181 kb containing five CC chemokine
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81.3%; Score 74; DB 4; Length 120;
Best Local Similarity 50.0%; Pred. No. 8.65e-04;
Matches 6; Conservative 5; Mismatches 1; Indels
                                                                       HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
SUBMITTED (NOV-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                               SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
GAMMAHERPESVIRINAE; RHADINOVIRUS.
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                                                                                                                                                                                                                                                                                                                                                                              activity.";
BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
EMBL: J0317464; D1024963;
EMBL: AR007454; D1024963;
EMBL: AR088219; G3719365;
EMBL: AF088219; G3719365;
EMBL: AF088219; G3719365;
EMBL: AF088219; G3719365;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120 AA; 13600 MW; A079DF66 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       95 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       098158; 012569;
01-FEB-1997 (TREMBLREL. 02, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEOT
01-NOV-1998 (TREMBLREL. 08, LAST ANN
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                                                         SEQUENCE FROM N.A
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EUKRAYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
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RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                          SEQUENCE FROM N.A.
NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFO D.,
HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
SUBMITTED (NOV-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.; SUBMITTED (OCT-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                         NEIPEL F., ALGERGHY J.C., FLECKENSTEIN B.;
"Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus human herpesvirus 8: determinants of its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 80.2%: Score 73; DB 14; Length 95; Best Local Similarity 66.7%; Pred. No. 1.43e-03; Matches 8; Conservative 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                 SUN R., LIN S.-F., MILLER G.;
SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL: U75689 (37128266; --
EMBL: U74589; G1658273; --
EMBL: U3872; G2246546; --
EMBL: U73866; G3551763; --
EMBL: U71366; G3551763; --
EMBL: PROPERTICAL PROPEIN.
SEQUENCE 95 AA; 10485 MW; 5283348D CRC32;
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HEDRICK J.A., ZLOTNIK A.;
SUBMITTED (MAX-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL, AF001980; G25249189; -.
EMBL, AF01980; G2524927; -.
MGD; MGI:1097677; SCYA21.
PFAM; PF00048; 118; 1.
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01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   containing six conserved cysteines."; J. IMMUNOL. 159:1589-1593(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SMALL INDUCIBLE CYTOKINE A21 (TCA4).
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| QVCADPSESWVQ 12
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009002;
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HEDRICK J.A., ZLOTNIK A.;
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
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                                                                                                                                                                                                                                                                1 QVCADPSESWVQ 12
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035188
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                         MUS MUSCULUS (MOUSE).
EUKREYOTA: METAZOA; CHORDATA; VERIEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
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ISOJation and characterization of Exodus-2, a novel C-C chemokine with a unique 37-amino acid carboxyl-terminal extension.";
J. IMMUNOL. 159:2554-2558(1997).
                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIINE; 97400322.
HEDRICK J.A., ZLOTNIK A.;
"Identification and characterization of a novel beta chemokine "Identification and characterization"."
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HROMAS R.A., GRAY P., KLEMSZ M., FIFE K., BROXMEYER H.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                     Length 133;
                                   Query Match 76.9%; Score 70; DB 11; Length 133 Best Local Similarity 58.3%; Pred. No. 6.38e-03; Matches 7; Conservative 4; Mismatches 1; Indels
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01-JUL-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-JUL-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
BETA CHEMOKINE EXODUS-2.
                                                                                                                                                                                                        01-JUL-1997 (TREMBLREL. 04, CREATED)
01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
BETA CHEMOKINE EXODUS-2.
           133 AA; 14558 MW; C0532523 CRC32;
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J. IMMUNOL. 159:1589-1593(1997).
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                                                                                                 73 ELCANPEEGWVQ 84
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000585
                    SEQUENCE
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
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SCIUROGNATHI; MURIDAE; MURINAE; MUS.
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NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S., NISHIMORA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.; SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; U88320; G2196920; -. EMBL; AR001979; G2624925; -. EMBL; AR002409; D1022673; -. EMBL; PROMO48; 118: 1. SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;
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ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
2LOTNIK A., BAZAN J.F.;
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL: 109265; G2459677; -.
PERAN; PEO0048: 118: 1.
PERAN; SPO0048: 118: 1.
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                                                                                                                                                                                                                                                            Score 67; DB 4; Length 134;
Pred. No. 2.76e-02;
2; Mismatches 2; Indels
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LAST ANNOTATION UPDATE)
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01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
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01-JAN-1998 (TREMBLREL. 05, :30 EPO)
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NATURE 387:611-617(1997).
EMBL; AF010586; G2317698; -.
MGD; MGI:1097153; SCXD1.
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                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 66.7%;
Matches 8; Conservative
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Matches
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
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                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SHIRAZI Y.;

"Isolation and characterization of Marek's disease virus (MDV) cDNAs mapping to the BamHI-12, BamHI-02, and BamHI-L fragments of the MDV infected with MDV in Sected with MDV."

VIROLOGY 213:590-599(1995).

EMBL: 034966, G1185444;

PFAM: PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-GA;
MEDLINE; 96074534.
PENG Q., ZENG M., BHUIXAN Z.A., UBUKATA E., TANAKA A., NONOYAMA M.,
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"A novel rat CC chemokine, identified by targeted differential display, is upregulated in brain inflammation.";
J. NEUROIMMUNOL. 0:0-0(1998).
                                           Score 67; DB 11; Length 395;
Pred. No. 2.76e-02;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72.5%; Score 66; DB 11; Length 97; 70.0%; Pred. No. 4.47e-02; 7; Conservative 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                     VILLARES R.;
SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF053313; G3551819; -.
EMBL; AJ007862; E1312757; -.
                                                                                                                                                                        01-NOV-1998 (TREMBLREL. 08, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ECO Q PROTEIN (FRAGMENT).
GALLID HERPESVIRUS TYPE 1.
VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
ALPHAHERPESVIRINAE; VARICELLOVIRUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  067634 PRELIMINARY; PRT; 203 AA. 067634: 01-NOV-1996 (TREMBLREL. 01, CREATED) 01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE) 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
PPAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                               POTENTIAL.
CC CHEMOKINE ST38.
053405BD CRC32;
                                                                                                                                                               97 AA.
                                                                                                                                                            PRT;
                                                                                                                                                                                                 01-NOV-1998 (TREMBLREL. 08, CC CHEMOKINE ST38 PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                     CHAIN 28 97 SEQUENCE 97 AA; 10826 MW;
                                           / Match
Local Similarity 80.0%;
les 8; Conservative
                                                                                                                                                         PRELIMINARY;
                                                                                    74 CADPKEKWVQ 83
                                                                                                  3 CADPSESWVQ 12
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                                          Query Match
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
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EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
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SCUENCE FROM N.A.
PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
NARDELLI B., PIPPALLA V., GENTZ S., THOTAKURA R., PARMELEE D.,
GENTZ R., GAROTTA G.;
J. EXP. MED. 0:0-0(0).
EMBL; U85768; G1916252;
PFAM; PF00048; 118; 1.
SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;
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                                                Query Match
72.5%; Score 66; DB 14; Length 203;
Best Local Similarity 63.6%; Pred. No. 4.47e-02;
Matches 7; Conservative 1; Mismatches 3; Indels
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Pred. No. 7.20e-02;
2; Mismatches 3; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                     JANG J.S., KIM B.E.;
SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF043341; G2905632; -.
EMBL; AF08819; G3719366; -.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                        (TREMBLREL. 06, CREATED)
(TREMBLREL. 06, LAST SEQUENCE UPDATE)
(TREMBLREL. 08, LAST ANNOTATION UPDATE)
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01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
NON_TER 1 1
SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;
                                                                                                                                                                                                                               91 AA.
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CF404FAD CRC32;
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CHAIN 24 91
SEQUENCE 91 AA; 99900 MW;
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similarity 58.3%;
7; Conservative
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                                                                                                                  145 VCVDPEAPWVQ 155
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01-NOV-1998
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043646
043646;
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STROMGYLOCENTROTUS PURPURATUS (PURPLE SEA URCHIN).
STROMGYLOCENTROTUS ECHINODERMIA, ECHINOZOA, ECHINOIDEA;
EUKARYOTA; METAZOA; ECHINOIDEA; STRONGYLOCENTROTUDEA;
ECHINACEA; ECHINOIDA; STRONGYLOCENTROTIDAE; STRONGYLOCENTROTUS.
                                                                                                                                                                                                                                                                                                                                                                         HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
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GINGRAS D., GAGNON C.;
GINGRAS D., GAGNON C.;
molecular cloning and characterization of a radial spoke head
protein of sea urchin sperm axonemes: involvement of the protein in
the regulation of sperm motility.";
MOL. BIOL. CELL 9:513-522(1998).
EMBL: 073123; G2905895; ...
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TISSUE-PANCREAS.
MEDLINE; 97275143.
HROWAS R., GRAY P.W., CHANTRY D., GODISKA R., KRATHWOHL M., FIFE K., HROWAS R., GRAY P.W., CHANTRY D., GODISKA R., COOPER S., BELL G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., RIEMSZ M.J.;
"Cloning and characterization of exodus, a novel beta-chemokine.";
"Cloning and characterization of exodus, a novel beta-chemokine.";
"Cloning and characterization of exodus, a novel beta-chemokine.";
"GODISTE: PSO0472: SMALL_CYTOKINES_CC; 1.
PROSITE: PSO0472: SMALL_CYTOKINES_CC; 1.
PFAM; PF0048; i18: 1
PFAM; PF0048; i18: 1.0691 MW; 152684C0 CRC32;
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Best Local Similarity 50.0%; Pred. No. 1.85e-01;
Matches 5; Conservative 4; Mismatches 1; Indels
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01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
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LAST SEQUENCE UPDATE)
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088430 PRELIMINARY; PRT;

088430;

01-NOV-1998 (TREMBLREL, 08, CREATED)
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Best Local Similarity 60.0%;
Matches 6; Conservative
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01-MAY-1997 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
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                                                                                         1 OVCADPSESWVO 12
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                                         72 QFCGDPKQEWVQ 83
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2 VCADPSESWV 11
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046178
046178;
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099664
099664;
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AC 08
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
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                                                                                                                                                                                                                                                                                                    MEDLINE; 98353531.
SCHANIEL C., PARDALI E., SALLUSTO F., SPELETAS M., RUEDL C., SCHANIEL C., SHINTU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G., SHINTUT T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G., SIDERAS P.; "Activated murine B lymphocytes and dendritic cells produce a novel CC chemokine which acts selectively on activated T cells."; J. EXP. MED. 188:451-463(1998).
EMBL, AF052505; 63378116; -. SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;
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01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE) 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE) CC CHEMOKINE ABCD-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Search completed: Fri Feb 4 17:29:06 2000
                                                                                                                                                                       SCIUROGNATHI; MURIDAE; MURINAE; MUS
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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsich_pp protein - protein database search, using Smith-Waterman algorithm

Fri Feb 4 17:34:01 2000; MasPar time 5.10 Seconds 128.544 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-44 (1-12) from US09150813.pep 91

1 QVCADPSESWVQ 12 Description: Perfect Score: Sequence:

PAM 150 Gap 15 Scoring table:

179066 seqs, 54579741 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

1:sp_archea 2:sp_bacteria 3:sp_fungi 4:sp_human 1:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle 9:sp_phage 10:sp_plant 11:sp_rodent 12:sp_unclassified 13:sp_vertebrate 14:sp_virus sptremp19 Database:

Mean 25.020; Variance 34.042; scale 0.735 Statistics:

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	pred. No.	1.64e-06	4 430-04	1.436 03	6.386-03	0.30E-03	20 20 1.7	20.00.00	2./0e-02	4.4.60	4.4/6-02	7.20e-02.	7.20e-02	1.16e-01	1.85e-01	2.94e-01	2 946-01	10-010	2.946.0	2.94C.2	4.076-01	4.0/e-01	
	Description		IL-10-INDUCIBLE CHEMOK	ORF K6.	SMALL INDUCIBLE CYTOKI		NE EXODOS	FRACTALKINE.	NEUROTACTIN.	CC CHEMOKINE ST38 PREC	ECO Q PROTEIN (FRAGMEN	RANTES PRECURSOR.	MPTF-2,	CHEMOKINE EXODUS.	CHEMONIAN CHOKEHEAD	KADIAL SPONDINGS	CC CHEMONINE ABOUT:	VMIP-1B.	CC CHEMOKINE EXODUS.	K60 PROTEIN PRECURSOR.	MACROPHAGE-DERIVED CHE	EBI-1 LIGAND CHEMOKINE	
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ALIGNMENTS 14745 14745; 14745; 14745; 14745; 14745; 14745; 14.0V-1996 (TREMBLREL. 01, CREATED) 1-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE) 1-NOV-1996 (TREMBLREL. 09, LAST ANNOTATION UDDATE) 1-NOV-1999 (TREMBLREL. 09, LAST ANNOTATION UDDATE) 1-NOV-1999 (TREMBLREL. 09, LAST ANNOTATION UDDATE) 1-SATARRHINI; HOMINIDAE; HOMO. 1-SATARRHINI; HOMINIDAE; HOMO. 1-SATARRHINI; HOMINIDAE; HOMO. 1-SATSURARA T.; 1-SATARRHINI; HOMINIDAE; HOMO. 1-SATSURAL S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M ANTERARA T.; 1-SATSURAL S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M ANTERARA T.; 1-SATSURAL CATOKINES_CC; 1. 1-SATSURAL CATOKINES_CC; 1. 1-SATSURAL S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M NON_TER S. 1-SATSURAL CATOKINES_CC; 1. 1-SATSURAL S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M NON_TER S. 1-SATSURAL CATOKINES_CC; 1. 1-SATSURAL S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M NON_TER S. 1-SATSURAL CATOKINES CC; 1. 1-SATSURAL S., KIN Y., SATSURAL CATOKINES S. 1-SATSURAL S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M NON_TER S. 1-SATSURAL S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M 1-1 OVCADPSEEWWO 76 1-1 QVCADPSEEWWO 76 1-1 QVCADPSEEWWO 12 1		PRI	•		
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KH400000MMMMH1		RESUI ID AC DT DT DE OS	R R R R R R R R R R R R R R R R R R R		Db RES RES PT DT DT DE DE GN

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HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
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                                                                                                                                                                                                                                                                                                  YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
HANGCG G., KWON B.S.;
ISOLation and characterization of LMC, a novel lymphocyte and
monocyte chemoattractant human CC chemokine, with myelosuppressive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D., PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.; "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 97094384.
MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
"Molecular mimicry of human cytokine and cytokine response pathway
                                                                                                                                   SHOUDAL K., HIESHIMA K., FUKUDA S., IIO M., MIURA R., IMAI T., YOSHIE O., NOMIYAMA H.; BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
                                                                                                                                                                                                                  Structure of a region of 181 kb containing five CC chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 74; DB 4; Length 120;
Pred. No. 8.65e-04;
5; Mismatches 1; Indels
                                                                   HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
SUBMITTED (NOV-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                             SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
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01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
GAMMAHERPESVIRINAE; RHADINOVIRUS.
                                                                                                                                                                                                                                                                                                                                                                  BIOCHEM, BIOPHYS, RES, COMMUN. 247:217-222(1998).
EMBL, U91746; G2581781;
EMBL, AR007454; D1024963; --
EMBL, AF088219; G319365; --
EMBL, AF088219; G3193776; --
PFAM, PF00048; il8; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120 AA; 13600 MW; A079DF66 CRC32;
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SCIENCE 274:1739-1744(1996).
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Local Similarity 50.0%;
es 6; Conservative
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MEDLINE; 97121480.
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Q98158 PREL
Q98158; Q12569;
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RUSSO J.J., BOHENZXY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D., PARRY J.P., PERUZI D., EDELMAN I.S., CHANG Y., MOORE P.S.; SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                     SEQUENCE FROM N.A.
NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFO D.,
HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
SUBMITTED (NOV-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE-THYMUS;
TANABE S., LU Z., LUO Y., QUACKENBUSH E.J., BERMAN M.A.,
COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
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"Identification and characterization of a novel beta chemokine containing six conserved cysteines.";
J. INMUNOL. 159:1589-1593(1997).
 PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
SUBMITTED (OCT-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                           MEDITINE; 97296220.
MEDITINE; 97296220.
NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
"Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus human herpesvirus 8: determinants of its
                                                                                                                                                                                                                                                                                                                                                                                                   80.2%; Score 73; DB 14; Length 95; 66.7%; Pred. No. 1.43e-03;
                                                                                                                                                                                                                                                                                SUN R., LIN S.-F., MILLER G.;
SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U75698; G1718266; ...
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HEDRICK J.A., ZLOTNIK A.;
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF001980; G2209189; ...
EMBL; AF011980; G2624927; ...
MGD; MGI:1097677; SCYA2I.
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LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                    PRT; 133 AA.
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01-071-1997 (TREMBLREL. 04, LAST SECC
01-NOV-1998 (TREMBLREL. 08, LAST ANNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SMALL INDUCIBLE CYTOKINE A21 (TCA4).
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                                                                                                                                                                                                                                                                                                                                                                                                                                larity 66.7%;
Conservative
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| QVCADPSESWVQ 12
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SEQUENCE FROM N.A.
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EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-TOTAL FETUS;
MEDLINE; 97444139.
HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COOPER S.,
HROMAS R., KIM C.H., ENCOMBYER H.E.;
SCHIZLEIN-BICK C., BROXMEYER H.E.;
ISOlation and characterization of Exodus-2, a novel C-C chemokine
with a unique 37-amino acid carboxyl-terminal extension.";
J. IMMUNOL. 159:2554-2558(1997).
                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 97400322.
HEDRIKK J.A., ZLOTNIK A.;
"Identification and characterization of a novel beta chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HROMAS R.A., GRAY P., KLEMSZ M., FIFE K., BROXMEYER H.; SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                               Length 133;
                                                 Match 76.9%; Score 70; DB 11; Length 133 Local Similarity 58.3%; Pred. No. 6.38e-03; Local Similarity 58.3%; Pred. No. 6.38e-03; Lindels 1; Conservative 4; Mismatches 1; Indels es
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
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01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                       01-JUL-1997 (TREMBLREL. 04, CREATED)
01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; U88322; G3169697; --
EMBL; U801:1097677; SCYA21.
PFAM; PF00048; i18; 1.
SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             134 AA.
             133 AA; 14558 MW; C0532523 CRC32;
                                                                                                                                                                                                                                                                   PRT; 133 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 58.3%;
Matches 7; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                     7; Conservative
                                                                                                                                                                                                                                                                                                                                                                             BETA CHEMOKINE EXODUS-2.
                                                                                                                                                                                                                                                                          PRELIMINARY;
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1 QVCADPSESWV0 12
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                                                                                                                                                73 ELCANPEEGWVQ 84
                                                                                                                                                                                      1 QVCADPSESWVQ 12
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000585
000585;
                           SEQUENCE
                                                                 Query Match
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MUS MUSCULUS (MOUSE).
EUKARYOTA: METALOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
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BUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
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NATURE 387:611-617(1997).
NATURE 387:611-617(1997).
MGD, MGI:1097153; SCYDI.
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                                                                  SEQUENCE FROM N.A. HESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S., NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKRIZA S., NISHIMMA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.; SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; U88320; G2196920; -.
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAIN=BALB/C: TISSUE=BRAIN;
ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
ZLOTNIK A., BAZAN J.E.
ZLOTNIK A., BAZAN J.E.
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL: U92565; G2459677; ---
EMBL: U92565; G2459677; ---
EMBL: U92565; A345977; ---
EMBL: U3365 A3; 42040 MW; 3997A113 CRC32;
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Pred. No. 2.76e-02;
Virmatches 2; Indels
                                                                                                                                                                                                                                                                                                                                       Score 67; DB 4; Length 134;
Pred. No. 2.76e-02;
2; Mismatches 2; Indels
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01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JAN-1998 (TREMBLREL. 05, CREATED)
01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
HEDRICK J.A., ZLOTNIK A.;
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                            EMBL: AF001919; G2624925; -.
EMBL: AB002409; D1022673; -.
PFAM: PF00048; i18; 1.
SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Mismatches
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Best Local Similarity 80.0%;
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Best Local Similarity 66.7%;
Matches 8; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 OVCADPSESWVQ 12
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LT 11
043646
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000175
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EUKARYOTA, METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
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0
                                                                                                                          Gaps
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Local Similarity 70.0%; Pred. No. 4.47e-02;
hes 7; Conservative 2; Mismatches 1; Indels 0; Gaps
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MEDLINE; 96074534.

PENDLINE; 96074534.

SHIRAILY;

"ISOLation and characterization of Marek's disease virus (MDV) cDNAs mapping to the BamHI-12, BamHI-02, and BamHI-L fragments of the MDV infected with MDV.";
VIROLGY 213:590-599(1995).

VIROLGY 213:590-599(1995).

PEMBL: U34966; G1185444;

PFAM: PF00048; i18; i...
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LESSLABER W.,
"A novel rat CC chemokine, identified by targeted differential display, is upregulated in brain inflammation.";
J. NEUROIMMUNOL. 0:0-0(1998).
                                                                                Length 395;
                                                                  Score 67; DB 11; Length 395;
Pred. No. 2.76e-02;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VILLARES R.;
SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF053313; G3551819;
EMBL; AJ007862; E1312757; -.
                                                                                                                                                                                                                                                                                                                        LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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GALLID HERRESVIRUS TYPE 1.
VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
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01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
PFAM; PF00048; i18; 1.
SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;
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CC CHEMOKINE ST38.
053405BD CRC32;
                                                                                                                                                                                                                                                                    97 AA.
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                                                                                                                                                                                                                                                                    089093;
01-NOV-1998 (TREMBLREL. 08, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQI
01-NOV-1998 (TREMBLREL. 08, LAST ANN
CC CHEMOKINE ST38 PRECURSOR.
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SEQUENCE 97 AA; 10826 MW;
                                                         Query Match
Best Local Similarity 80.0%;
Matches 8; Conservative
                                                                                                                                                                                                                                                          PRELIMINARY;
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                                                                                                                                      74 CADPKEKWVQ 83
                                                                                                                                                                           3 CADPSESWVQ 12
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Q67634
Q67634;
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Matches
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CATARRHINI; HOMINIDAE; HOMO.
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CATARRHINI; HOMINIDAE; HOMO
                                                                                                                         Gaps
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PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
NARDELLI B., PIPPALLA V., GENIZ S., THOTAKURA R., PARMELEE D.,
J. EXP. MED. 0.0-0-0,
EMBL; U85768; G1916252;
PFAM; PF00048; 118; 1.
SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;
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0
                                                    Ouery Match
Best Local Similarity 63.6%; Pred. No. 4.47e-02;
Matches 7; Conservative 1; Mismatches 3; Indels
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Pred. No. 7.20e-02;
2; Mismatches 3; Indels
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Query Match

Best Local Similarity 58.3%; Pred. No. 7.20e-02;

Matches 7; Conservative 2; Mismatches 3; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JANG J.S., KIM B.E.;
SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                         01-JUN-1998 (TREMBLREL. 06, CREATED)
01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
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01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
NON_TER 1 1
SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;
                                                                                                                                                                                                                                                                    91 AA.
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                                                                                                                                                                                                                                                                    PRT;
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CHAIN 24 91
SEQUENCE 91 AA; 9990 MW;
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Similarity 58.3%;
7; Conservative
                                                                                                                                                                                                                                                           PRELIMINARY;
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                                                                                                                                  145 VCVDPEAPWVQ 155
                                                                                                                                                                                                                                                                                                                                                                                           HOMO SAPIENS (HUMAN).
                                                                                                                                                                            2 VCADPSESWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 OVCADPSESWVQ 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
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Job time : 60 secs.
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STROMGYLOGENTRADUS.
STROMGYLOGENTRADUS. ECHINODERMIA, ECHINOZOA; ECHINOIDEA; EUECHINOIDEA;
EUKARYOTA, METAZOA, ECHINODERMIA, ECHINOZOA; STRONGYLOCENTROTUS.
ECHINACEA; ECHINOIDA; STRONGYLOCENTROTIDAE; STRONGYLOCENTROTUS.
                                                                                                                                                                                                                                CHORDATA; VERIEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 98119758.
GINGRAS D., GAGNON C.;
GINGRAS D., GAGNON C.;
GINGRAS D., GAGNON C.;
MoLecular cloning and characterization of a radial spoke head
molecular cloning and characterization of a radial spoke head
protein of sea urchin sperm axonemes: involvement of the protein in
the regulation of sperm motility.";
MOL. BROL. CELL 9:131-522(1998).
EMBL; U73123; G295895.
EMBL; U73123; G295895.
SEQUENCE 552 AA; 62723 MW; 898CFCCC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                    HROMAS R., GRAY P.W., CHANTRY D., GODISKA R., KRATHWOHL M., FIFE K., BELL G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., BROXMEYER H.E., KLEMSZ M.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                         "Cloning and characterization of exodus, a novel beta-chemokine.";
BLOOD 89:3315-3322(1997).
EMBL: U64197; G1778177;
EMBL: PS004042; SMALL_CYTOKINES_CC: 1.
PFAM: PF00048; 118: 1.
SEQUENCE 95 AA: 10691 MW: 1526B4C0 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 64; DB 4; Length 95;
Pred. No. 1.16e-01;
3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-JUN-1998 (TREMBLREL. 06, CREATED)
01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                        01-MAY-1997 (TREMBLREL. 03, CREATED)
01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4; Mismatches
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                                                                                                                         95 AA.
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01-NOV-1998 (TREMBLREL. 08, CREATED)
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                                                                                                                         PRT;
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Best Local Similarity 50.0%;
Matches 5; Conservative
                                                                                                                                                                                                                                     EUKARYOTA; METAZOA; CHORDATA
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ouery Match 70.3%;
Best Local Similarity 60.0%;
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                                               | |:|| : |||
| QVCADPSESWVQ 12
                             72 QFCGDPKQEWVQ 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  72 VCANPKQTWV 81
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2 VCADPSESWV 11
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MEDLINE; 97275143.
                                                                                                                                                                                                           CHEMOKINE EXODUS
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088430
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046178
046178;
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099664
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ID 08
AC 08
DT 01
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                                                      CC CHEMOKINE ABCD-1.
MUS MUSCULUS (MOUSE).
EUKARYOTA, METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
                                                                                                                                                                                                                                                                                                                                     "Activated murine B lymphocytes and dendritic cells produce a novel CC chemokine which acts selectively on activated T cells.";
CT CRP. MED. 188:451-463(1998).

EMBL; AF052505; G3378116; -.

SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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                                                                                                                                                                                                                                    MEDLINE; 98353531.
SCHAMIEL C., PARDALI E., SALLUSTO F., SPELETAS M., RUEDL C.,
SHIMIZU I., SEIDL I., ANDERSSON J., MELCHERS F., ROLINK A.G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 54.5%; Pred. No. 2.94e-01;
Matches 6; Conservative 3; Mismatches 2; Indels
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Search completed: Fri Feb 4 17:35:01 2000
                                                                                                                                      SCIUROGNATHI; MURIDAE; MURINAE; MUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   74 DICADPROVWV 84
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protein - protein database search, using Smith-Waterman algorithm MPsrch_pp

Fri Feb 4 17:39:54 2000; MasPar time 5.06 Seconds 129.377 Million cell updates/sec

Tabular output not generated.

>US-09-150-813-65 (1-12) from US09150813.pep 96 1 EICADPKEKWVQ 12 Description: Perfect Score: Sednence:

PAM 150 Scoring table: 179066 seqs, 54579741 residues Searched:

Minimum Match 0% Listing first 45 summaries Post-processing:

1:sp_archea 2:sp_bacteria 3:sp_fungi 4:sp_human 5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle 9:sp_phage 10:sp_plant 11:sp_rodent 12:sp_unclassified 13:sp_vertebrate 14:sp_virus sptremp19 Database:

Mean 25.653; Variance 35.991; scale 0.713 Statistics:

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Pred. No.	1.61e-05 2.02e-04 2.02e-04 1.46e-03 3.84e-03 6.22e-03 1.61e-02 2.58e-02 2.58e-02 2.58e-02 4.12e-02 4.12e-02 4.12e-02 6.55e-02 6.55e-02
Description	NEUROTACTIN. BERACHEMENE BETA CHEMOKINE EXODUS- LD78 ALPHA BETA PRECUR LL-10-INDUCIBLE CHEMOK MPIF-2. CC CHEMOKINE STA38 PREC CC CHEMOKINE PRECURS LYMPHOTACTIN PRECURSOR BETA CHEMOKINE EXODUS. CC CHEMOKINE EXODUS. CC CHEMOKINE EXODUS. INTERLEUKIN-8 (FRAGMEN B LYMPHOCYTE CHEMOATTR RAWES PRECURSOR. BATAS PRECURSOR. CC CHEMOKINE EXODUS. INTERLEUKIN-8 (FRAGMEN B LYMPHOCYTE CHEMOATTR RAWES PRECURSOR. MACROPHAGE-DERIVED CHE CC CHEMOKINE-1.
a.	035188 0005833 0005833 014745 0117467 010175 089093 088430 P784423 0574413 057412 0590664 0990664 0090664 0090664 0090664 0090664
% Query Match Length DB	395 11 395 11 80 4 100 4 1120 4 119 11 92 11 397 13 1133 11 133 11 133 11 96 11 96 11 97 16 109 16
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Score	84 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Result No.	2 2 3 3 3 4 4 4 3 3 3 5 4 4 4 4 4 4 4 4 4 4

1.04e-01 9.82e-01	1.52e+00	1.52e+00	2.346+00	5.496+00	5.49e+00	5.49e+00	5 49e+00	00+076	00+010	٠	8.346+00	1.26e + 01	1.26e+01	1.26e+01	104090	1000	T.206+01	1.26e+01	1.26e+01	1 260+01	1.200.1	٠	1.90e+01	1,90e+01		10000	2.84e+01	
CHITIN SYNTHETASE I. CXC CHEMOKINE PRECURSO	ECO Q PROTEIN (FRAGMEN	ENVELOPE GLYCOPROTEIN	SERINE RICH PROTEIN HO	KAN PROTEIN PRECURSOR.	NIGHTORD FIRM	TELL FROIDERS	2007	462 PROILEIN	NPP47 PROTEIN.		TITIN, HEART ISOFORM N	PANTEL OPE GLYCOPROTEIN	ENVELORE CELECOTETIN	ENVELOPE GLICOLINGIEL	HYPOTHETICAL ZI.4 NO	MHC CLASS I PROTEIN MO	389AA LONG HYPOTHETICA	11.154	ORE CLICA:	ENVELOPE GLICOFNOIDEN	ENVELOPE GLYCOPROTEIN	COSMID 2C8.	COTON 2 DROTEIN	CZ/DG:3 TOTAL DEDUCTA	1000101	T24B8.7 PROTEIN.	FNVFLOPE GLYCOPROTEIN	
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ALIGNMENTS

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MUS MUSCULOS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                    MUS MUSCULUS (MOUSE).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                          HILLINE; 97320499.
MEDLINE; 97320499.
PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J., PAN Y., CLARE L., HONG Z., DOLICH B., ALPERIN A., CULPEPPER J., GUTIERREZ-RAMOS J.C., GEARING D.;
GUTIERREZ-RAMOS J.C., GEARING D.;
"Neurotactin, a membrane-anchored chemokine upregulated in brain inflammation.";
NATURE 387:611-617(1997).
EMBL; AF010586: G2317688; -.
MGD; MGI:1097153: SCYD1.
PFPAN; PF00048: ii8; 1.
PFFAN; PF00048: ii8; 1.
                                                                                                                                                                                                                                                                                                                                                                                                   0; Gaps
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Best Local Similarity 90.9%; Pred. No. 1.61e-05;
Matches 10; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JAN-1998 (TREMBLREL. 05, CREATED)
01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                               01-JAN-1998 (TREMBLREL. 05, CREATED)
01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
01-JAN-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              395 AA.
    PRT; 395 AA
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           PRELIMINARY;
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                                                                                        NEUROTACTIN.
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035933
RESULT 1
ID 035188
AC 035188;
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HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
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01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-JAN-1999 (TREMBLREL. 09, LAST SEQUENCE UPDATE)
1D/N ALPHA BETA PRECURSOR (FRAGMENT).
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                   0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SECUENCE FORM N.T.

NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,

NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;

SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBU DATA BANKS.

EMBL; AF001979; G2624925; --

EMBL; AB002409; D1022673; --

EMBL; AB002409; D1022673; --

SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
SEQUENCE FROM N.A.
STRAIN-BALB/C; TISSUE-BRAIN;
ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
SUBMITTED (MAR-1997) TO "BEL/GENBANK/DDBJ DATA BANKS.
BEMEL; U92565; G2459677; --
BEMEL; PPROMO48; 118; 1.
SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HEDRICK J.A., ZLOTHIK A., "Identification and characterization of a novel beta chemokine containing six conserved cysteines.";
J. INMUNOL. 159:1589-1593(1997).
                                                                                                                                               Match
Local Similarity 90.9%; Score 84; DB 11; Length 395;
Local Similarity 90.9%; Pred. No. 1.61e-05;
Les 10; Conservative 1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   82.3%; Score 79; DB 4; Length 134;
83.3%; Pred. No. 2.02e-04;
rative 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
HROMAS R.A., GRAY P., KLEMSZ M., FIFE K., BROXMEYER H.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
HEDRICK J.A., ZLOTNIK A.;
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                1-JUL-1997 (TREMBLREL. 04, LAST SEÓGENCE UPDATE)
1-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                            134 AA.
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                                                                                                                                                                                                                                                                                                                                            01-JUL-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEO
                                                                                                                                                                                                                                                                                                                         PRT;
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nes 10; Conservative
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                                                                                                                                                                                                                 73 FCADPKEKWVQ 83
                                                                                                                                                                                                                                                2 ICADPKEKWVQ 12
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000585
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014745
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HOMO SAPIENS (HUMAN),
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Isolation and characterization of LMC, a novel lymphocyte and monocyte chemoattractant human CC chemokine, with myelosuppressive
                                            ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUGHI K., KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M., MIURA R.,
                                                                                                                                                                                                                                                    ;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SHOUDAL K., HIESHIMA K., FUKUDA S., IIO M., MIURA R., IMAI T., YOSHIE O., NOMIYAMA H.; BIOCHIM. BIOCHIM. BIOCHIM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR. HANGOC G., KWON B.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          structure of a region of 181 kb containing five CC chemokine
                                                                                                                                                                                                           Score 75; DB 4; Length 8v;
Pred. No. 1.46e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 74; DB 4; Length 120; Pred. No. 2.37e-03;
                                                                               SUBMITTED (AUG-1995) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; D63785; D1010501; -. PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
SUGMITTED (NOV-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                       01-JAN-1998 (TREMBLREL. 05, CREATED)
01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           activity ";
BIOCHEM BIOPHYS. RES. COMMUN. 247:217-222(1998).
BMBL; 91746; 02581781; --
EMBL; AB007454; D1024963; --
EMBL; AF088219; G3719365; --
EMBL; AF088219; G3719365; --
EMBL; AF088467; G3395776; --
                                                                                                                                                                         LD78 ALPHA BETA.
                                                                                                                                                                                              3F87F1C6 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120 AA; 13600 MW; A079DF66 CRC32;
                                                                                                                                                                                                                                                                                                                                           120 AA.
                                                                                                                                                            POTENTIAL.
                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                              1 1
<1 16
17 >80
80 80
80 AA; 8857 MW;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                          8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                            IL-10-INDUCIBLE CHEMOKINE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Guery Match
Best Local Similarity 50.0%;
                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                              65 QVCADPSEEWVQ 76
                                                                                                                                                                                                                                                                              1 EICADPKEKWVQ 12
                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
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                                  TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-LIVER;
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SEQUENCE
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SIGNAL
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SEQUENCE
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015467
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Matches

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RESULT

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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
SEQUENCE TO C. TOPICS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
"Homo sapiens Chromosome 16 BAC clone CIT987SK-A-152E5.";
"Homo sapiens Chromosome 16 BAC clone CIT987SK-A-152E5.";
SUBMITTED (JUN.1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U91835; G1889523; --
EMBL; NG4487; G1889523; --
EMBL; ACO04382; G322821; --
PEPAM; PF00048; 118; 1.
                                        01-NOV-1998 (TREMBLREL. 08, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
02-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
MUS WUSCULUS (MOUSE).
MUSCULUS (MOUSE).
EUKRARYOTA, METAZOA, CHORDATA, VERTEBRATA, MAMMALIA, EUTHERIA, RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                           "Activated murine B lymphocytes and dendritic cells produce a novel cc chemokine which acts selectively on activated T cells."; CC chemokine which acts selectively on activated T cells."; J. EXP. MED. 188.451-463(1998).

EMBL; AF052505; G3378116; SEQUENCE 92 AA; 10302 MW; BC7219A0 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BAZAN J.F., BACON K. B., HARDIMAN G., WANG W., SOO K., ROSSI D., GREAVES D.R., ZLOTNIK A., SCHALL T.J.;
"A new class of membrane-bound chemokine with a CX3C motif.";
NATURE 385:640-644(1997).
                                                                                                                                                                                                           MEDLINE; 98353531.
SCHANTEL C., PARRALI E., SALLUSTO F., SPELETAS M., RUEDL C., SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G., SIDERAS P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 397;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                         Score 71; DB 11; Length 92;
Pred. No. 1.00e-02;
3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P78423: 000672:
01-MAY-1997 (TREMBLREL. 03, CREATED)
01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
01-MAY-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
033C CHEMOKINE PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 70; DB 4; Lk
Pred. No. 1.61e-02;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C8093D7D CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  397 AA.
                 92 AA.
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                     PRT;
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25 397 C
397 AA; 42202 MW;
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Best Local Similarity 80.0%;
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                               vuery Match
Best Local Similarity 63.6%;
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                         PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            73 FCADPKEQWV 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 ICADPKEKWV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             74 DICADPRQVWV 84
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SIGNAL
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P78423
       LT 8
088430
088430;
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EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
ȘCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                      HOMO SAPIENS (HUMAN).
EUKARYOTA: METAZOA: CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
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   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LESSLAUER W.;

"A novel rat C chemokine, identified by targeted differential display, is upregulated in brain inflammation.";
J. NEUROLIMMUNOL. 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ô
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BMEL, U85768; G1916252; -.

BMEL, PRO0048; L18: 1.

SEQUENCE 119 AA: 13119 MW; CDF526F0 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match 75.0%; Score 72; DB 11; Length 97; Local Similarity 70.0%; Pred. No. 6.22e-03; Local Similarity 7; Conservative 3; Mismatches 0; Indels 1es
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 76.0%; Score 73; DB 4; Length 119; Best Local Similarity 58.3%; Pred. No. 3.84e-03; Matches 7; Conservative 4; Mismatches 1; Indels Matches
         1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; APO53313; G3551819; -. EMBL; AJ007862; E1312757; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                  01-10-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-JUL-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CC CHEMOKINE ST38.
053405BD CRC32;
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         5; Mismatches
                                                                                                                                                   PRT; 119 AA.
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01-NOV-1998 (TREMBLREL. 08, LAST SECU
01-NOV-1998 (TREMBLREL. 08, LAST ANNC
CC CHEMOKINE ST38 PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
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28 97
97 AA; 10826 MW;
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             6; Conservative
                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              72 OFCGDPKQEWVQ 83
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2 ICADPKEKWV 11
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                                                  74 EVCTNPNDDWVO 85
                                                                                   1 EICADPKEKWVQ 12
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                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HROMAS R., KIM C.H., KLEMSZ M., KRATHWOHL M., FIFE K., COOPER S., SCHNIZLEIN-BICK C., BROXMEYER H.E., ISOJAtion and characterization of Exodus-2, a novel C-C chemokine with a unique 37-amino acid carboxyl-terminal extension.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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                                                                                     GALLUS GALLUS (CHICKEN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
NEGGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò.
                                                                                                                                                                                                                                                                   Score 69; DB 13; Length 97;
Pred. No. 2.58e-02;
1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 69; DB 11; Length 133;
Pred. No. 2.58e-02;
2; Mismatches 2; Indels
                                                                                                                                                            ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL: AF006742; G2827882;
                                   01-JUN-1998 (TREMBLREL. 06, CREATED)
01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
LYMPHOTACTIN PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U88322; G3169697; --
MGD; MGI:1097677; SCTA21.
PFAM; PF00048; 118; 1.
SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                          01-JUL-1997 (TREMBLREL. 04, CREATED)
01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                   POTENTIAL,
LYMPHOTACTIN,
3290101C CRC32;
                       97 AA.
                                                                                                                                                                                                                                                                                                                                                                                             PRT; 133 AA.
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SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                             SIGNAL 1 24 CHAIN 25 97 SEQUENCE 97 AA; 11131 MW;
                                                                                                                                                                                                                                                                    71.98;
                                                                                                                                                                                                                                                                         Local Similarity 63.68;
les 7; Conservative
                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              71.9%;
Local Similarity 66.7%;
les 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHEMOKINE EXODUS-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MUS MUSCULUS (MOUSE).
                                                                                                                                                                                                                                                                                                             72 ICVHPEQKWVQ 82
                                                                                                                                                                                                                                                                                                                                    2 ICADPKEKWVQ 12
                                                                                                                                    SEQUENCE FROM N.A.
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TISSUE-TOTAL FETUS;
MEDLINE; 97444139.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73 ELCANPEEGWVQ 84
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| EICADPKEKWVQ 12
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                                                                                                                                                    TISSUE=SPLEEN
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              057411
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009006
009006;
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Best Local
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009002
Matches
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133 AA.

PRT;

PRELIMINARY;

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MUS WUSCULUS (MOUSE).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MUS.
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                                                                                                                                   TANABE S., IU Z., LUO Y., QUACKENBUSH E.J., BERWAN M.A., COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E.; SUBMITTED (JUN-1997) TO EWBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Gaps
                                                                                                                                                                                                     HEDRICK J.A., ZLOTRIK A.,
"Identification and characterization of a novel beta chemokine containing six conserved cysteines.";
J. IMMUNOL. 159:1589-1593(1997).
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                                                                                                                                                                                                                                                                                                                                                                          Length 133;
                                                                                                                                                                                                                                                                                                                                                                   71.9%; Score 69; DB 11; Length 133 66.7%; Pred. No. 2.58e-02; vative 2; Mismatches 2; Indels
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                                                                                                                                                                                                                                                                   SECUENCE FROM N.T.
SUCHILE FROM N.T.
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL, AFCO6637; G2209189; --
EMBL, AFCO60390; G2624927; --
MGD: MGI:1097677; SCYA21.
PFAM: PFCO048; i18; 1.
SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;
         01-JUL-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
SMALL INDUCIBLE CYTOKINE A21 (TCA4).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAY-1997 (TREMBLREL. 03, CREATED)
01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95 AA.
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Matches 8; Conservative
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                                                                                        RATTUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
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                                                                                                                                                                                                                                                                             LESSLAUER W.;

"A novel rat CC chemokine, identified by targeted differential display, is upregulated in brain inflammation.";
J. NEUROIMMUNOL. 0:0-0(1998).
BEMBL: 000447; G1899246; -..
EMBL: AF053312; G3551877; -..
PFAM; PF00048; i18; 1.
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EUKRAYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PERISSODACTYLA; EQUIDAE; EQUUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   / Match 70.8%; Score 68; DB 6; Length 97; Local Similarity 58.3%; Pred. No. 4.12e-02; les 7; Conservative 2; Mismatches 3; Indels
                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN-FISHER 344; TISSUE-BRAIN;
UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
                                                                                                                                                                                                                                                                                                                                                                                                                    Score 68; DB 11; Length 96; Pred. No. 4.12e-02; 2; Mismatches 1; Indels
                                                                                                                                                                 STRAIN-SPRAGUE-DAWLEY:
KELNER G.S., MACIEJEWSKI-LENOIR D., LEE E.D., MAKI R.A.;
SUBMITTED (FEB-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FRANCHINI M.;
SUBMITTED (APR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF062377; G3126973; -.
NON_TER 97
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01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
INTERLEUKIN-8 (FRAGMENT).
                                   01-MAY-1997 (TREMBLREL. 03, CREATED)
01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
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          96 AA.
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            PRT;
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TISSUE-BRONCHOALVEOLAR TISSUE;
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Best Local Similarity 70.0%;
Matches 7; Conservative
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              PRELIMINARY;
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| EICADPKEKWVQ 12
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2 ICADPKEKWV 11
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062812
062812;
LT 14
P97884
P97884;
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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Fri Feb 4 17:38:48 2000; MasPar time 3.57 Seconds 134.609 Million cell updates/sec Tabular output not generated.

Run on:

>US-09-150-813-65 (1-12) from US09150813.pep 96

1 EICADPKEKWVQ 12 Description: Perfect Score: Sedneuce:

PAM 150 Gap 15 Scoring table:

122810 seqs, 40068593 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

1:plr1 2:pir2 3:pir3 4:pir4 Database:

Mean 24.896; Variance 35.903; scale 0.693 Statistics:

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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macrophage inflammato macrophage inflammato LD78-beta protein pre immediate-early serum Neutrophil attractant lymphocyte and monocyt pre-B-cell growth-sti interleukin-8 homolog monocyte chemoattract cytokine spp-1-beta inmune activation gen immune activation gen Chitin synthetase I macrophage inflammato monocytic cytokine FI	RSV-induced process transformation-induce gene C10 protein - mo lymphotactin precurso hypothetical protein
A31767 A30574 B35673 S07723 148148 J50177 A53497 I53416 A46539 G01540 I181182 G01540 I18730 ETMSL A28815 S55520 A48093	ISO417 A26736 I49555 ETHUL F69804
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77755 7777 7773 7773 773 773 773 773 773	64 63 62 57
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ALIGNMENTS

A60299 #type complete monocyte chemoatractant protein 1 precursor - human monocyte chemoatractant protein 1 precursor - human GDCF-1; glioma-derived monocyte chemotactic factor 1; monocyte secretory MCP-1; monocyte chemotactic factor 1; monocyte secretory protein; tumor-derived femotactic factor 2 glioma-derived chemotactic factor 2 (GDCF-2) #formal_name Homo sapiens #common_name man #formal_name Homo sapiens #common_name man 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change 20-Mar-1998 A35474; A33476; S03339; IS1841; A60299; A32300; A32396;	A34561; 15/488; JCLU39 ERENCE A3474/4 A34561; 15/488; JCLU39 ERENCE Shyy Y.J.; Li, Y.S.; Kolattukudy, P.E. Shyy Y.J.; Li, Y.S.; Kolattukudy, P.E. # Journal Biochem. Biophys. Res. Commun. (1990) 169:346-351 # Little regulation by TPA. # Cross references MUID:90290466 # accession # A3474 # # Fresidues	S0333 S0333 Yoshi M.J FEBS Humal CDI mol col col soloses 1 S033
RESULT 1 ENTRY TITLE ALTERNATE_NAMES CONTAINS ORGANISM DATE ACCESSIONS	REFERENCE # authors # journal # title # cross-referencession # # residues #	##residues ##cross-ref REFERENCE #authors #journal #title #cross-refere #accession ##stetus ##stetus ##molecules ##residues ##residues ##cross-re

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A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and activating factor (MCP-1/MCAF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     #authors Furutani, Y.; Nomura, H.; Notake, M.; Oyamada, Y.; Fukui, T.; Fanada, M.; Larsen, C.G.; Oppenhelm, J.J.; Matsushima, K. #journal Blochem. Blophys. Res. Commun. (1989) 159:249-255
Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            #journal Bloohem, J. Consulys, N.; Lenderts, J.P.; Billiau, A.; Van Bloohem. Biophys. Res. Commun. (1990) 167:904-909 Identification of the monocyte chemotactic protein from human across-references. Mulls processed form. #cross-references Mulls 90211336
                                                                                                                                                                                                                                                                               Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #authors Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill, J.B.; Kolattukudy, P.E.
#journal Mol. Cell. Blochem. (1993) 126:61-68
#title The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.; Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E. Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854 Complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van
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#cross-references MVID:92095166
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                                                                                                                                                                  preliminary; translated from GB/EMBL/DDBJ
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##cross-references GB:S71513; NID:9240867; PID:9240868
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##residues 1-99 ##label FUR
##cross-references GB:M24545; NID:9187434; PID:9307163
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                                               Yoshimura, T.; Leonard, E.J.
Adv. Exp. Med. Biol. (1991) 305:47-56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ##molecule_type protein
##residues 29-33,'XX',36-52;82-92 ##label DEC
##experimental_source glioma cell line U-105MG
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**Product monocyte chemoattractant protein 1 **status experimental **label Mar\"

**experimental **label Mar\"

**product monocyte chemoattractant protein 1, short form **status experimental **label Mar\"

**modified.site pyrrolidone carboxylic acid (Gln) (in mature form) **status experimental **

**hinding_site carbohydrate (Asn) (covalent) **status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   monocyte chemoattractert protein-1 precursor - pig
#formal_name Sus scrofa domestica #common_name domestic pig
30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
                                                                                                                                                                                                                                        #domain signal sequence #status predicted #label SIG\
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
Scheit, K.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Blochem. Biophys. Res. Commun. (1994) 199:962-968
Porcine luteal cells express monocyte chemoattractant
protein-1 (MCP-1): Analysis by polymerase chain reaction
                                                                                                                    ##CTOSS-references GDB:125279; OMIM:158105
#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS
CYtokine; glycoprotein; inflammation; pyroglutamic acid
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#product monocyte chemoattractant protein-1 #status
predicted #label MAT\
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predicted
#length 99 #molecular weight 10976 #checksum 9768
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Submitted to the EMBL Data Library, July 1994
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FICATION #Superfamily macrophage inflammatory protein
DS glycoprotein
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chemoattractant protein-1 (MCP-1) gene.
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                                ##molecule_type mRNA
##residues 24-28,'Q',30-99 ##label YEQ
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##residnee
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                                                                                                      GDB:SCYA2
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Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.; Suzuki, K.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Legastelois, I.; Greenland, T.; Arnaud, P.; Mornex, J.F.; Cordier, G.
Cordier, G.
submitted to the EMBL Data Library, March 1994
Nucleotide sequence of ovine interleukin 8 cDNA using
polymerase chain reaction.
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interleukin 8 - sheep
#formal_name Ovis sp. #common_name sheep
21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
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#formal.name Ovis orientalis aries, Ovis ammon aries
#common_name domestic sheep
06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
08-Sep-1997
                                                                                                                             #formal_name Canis lupus familiaris #common_name dog
19-May-1994 #sequence_revision 19-May-1994 #text_change
12-Apr-1995
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##cross-references EMBL:X78306; NID:9463253; PID:9463254
##cross-references EMBL:X78306
##c
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#length 95 #molecular-weight 10611 #checksum 3157
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Pred. No. 2.17e-06;
1; Mismatches 1; Indels
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Best Local Similarity 83.3%;
Matches 10; Conservative
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| EICADPKEKWVQ 12
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O
                                                                                                                                                                   monocyte chemoattractant protein-1 - bovine
monocyte chemoattractant protein-1 - bovine
#formal_name Bos primigentus indicus #common_name zebu cattle
20-Feb-1995 #text_change
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#product monocyte chemoattractant protein 1 #status
predicted #label MAT\
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DNA Cell Biol. (1991) 10:671-679 identified a major basic
Gene expression and cDNA cloning identified a major basic
protein constituent of bovine seminal plasma as bovine
monocyte-chemoattractant protein-1 (MCP-1).
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monocyte chemoattractant protein 1 precursor - bovine
monocyte chemotactic factor 1; seminal plasma protein P6
monocyte chemotactic factor 1; seminal plasma protein P6
#formal_name Bos primigenius taurus #common_name cattle
03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
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##molecule_type mRNA
##residues
##cross-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
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                                                                                                                                                                                                                                                                                                                                                 Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
Characterization of the bovine monocyte chemoattractant
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91.7%; Score 88; DB 2; Length 99;
Best Local Similarity 83.3%; Pred. No. 1.30e-06;
Matches 10; Conservative 2; Mismatches 0; Indels
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2; Mismatches 0;
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##recidnes 1-99 ##label WEM
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#cross-references MUID:94338337
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Best Local Similarity 83.3%;
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ALTERNATE_NAMES ORGANISM

DATE

RESULT

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#title

ACCESSIONS

REFERENCE

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Gaps

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Gaps

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CLASSIFICATION

KEYWORDS

FEATURE

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SUMMARY

#accession

#accession

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#authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.
#journal Immunol. Cell Biol. (1994) 72:398-405
#title Cloning, sequencing, expression and inflammatory activity in #cross-inferences MUID:95137691
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                interleukin-8 precursor - pig
#formal_name Sus scrofa domestica #common_name domestic pig
02-jun-1995 #sequence_revision 02-jun-1995 #text_change
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Molecular cloning of porcine alveolar macrophage-derived neutrophil chemotactic factors I and II; Identification of porcine IL-8 and another intercrine-alpha protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      #authors Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch, #journal J. Biol. Chem. (1994) 269:77-95
#title Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.
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                                                                                                                                                                                                                                                         *Superfamily beta-thromboglobulin
#length 101 #molecular-weight 11292 #checksum 294
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##cross-references GB:M86923; NID:g164520; PID:g164521
FICATION #superfamily beta-thromboglobulin

"I #length 103 #molecular weight 11633 #checksum 8835
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                                                                                                                                                    preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                    90.6%; Score 87; DB 2; Length 101; 83.3%; Pred. No. 2.17e-06;
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                                                                                                                                                                                ##residues 1-101 ##label SEO
##cross-references GB:S74436; NID:9786590; PID:9786591
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hes 10; Conservative
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Local Similarity 83.3%;
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#journal J. Immunol. (1991) 146.3488-3488

#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their #cross-references wild protein cells.
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                     monocyte chemoattractant protein-1 - rabbit
#formal_name Oryctolagus cuniculus #common_name domestic
                                                                                                                                                                                                                   0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                     rabbit
14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
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#formal_name Rattus norvegicus #common_name Norway rat
29-May-1998 #sequence_revision 29-May-1998 #text_change
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Blochem. Blophys. Res. Commun. (1995) 211:289-295
Molecular cloning and posttranscriptional regulation of
macrophage inflammatory protein-1 alpha in alveolar
                                                                                                         CLASSIFICATION #superfamily beta-thromboglobulin
*Length 103 #molecular-weight 11677 *checksum 8904
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#length 125  #molecular-weight 13776  #checksum 4498
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CLASSIFICATION #superfamily macrophage inflammatory protein
SUMMARY #length 92 #molecular-weight 10335 #checksum 3184
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Pred. No. 2.17e-06;
1; Mismatches 1; Indels
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Pred. No. 2.17e-06;
1; Mismatches 0; Indels
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                 preliminary
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Local Similarity 83.3%;
les 10; Conservative
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Conservative
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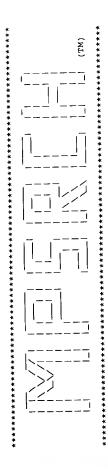
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The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome
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#title Human monocyte chemotactic protein-3 (MCP-3): Molecular cloning of the CDNA and comparison with other chemokines.
#cross-references MUID:93213290
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predicted #label WATY
#binding_site carbohydrate (Asn) (covalent) #status
predicted
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83.3%; Pred. No. 3.62e-06;
vative 1; Mismatches 1; Indels
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                                          1; Indels
  DB 2; Length 92;
Score 86; DB 2; Le
Pred. No. 3.62e-06;
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#map_position 1/q11-1/q12
#introns 36/1; 75/2
                                                 1; Mismatches
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##residues 1-109 ##label OPD
##cross-references GB:X72309
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#cross-references MUID:94375065
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Matches 10; Conservative
    Query Match 89.6%;
Best Local Similarity 83.3%;
Matches 10; Conservative
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##residues 1-109
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83 EICADPTQKWVQ 94

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This protein belongs to the beta-chemokine family which is one of the major HV-suppressive factors. It plays roles in autoimmune processes such as multiple sclerosis and rheumatoid arthritis and in tunor biology, and contribute to the trafficking and recuitment of the responsive cells.
                                                                                                                                      Bartels, J.; Schlueter, C.; Richter, E.; Noso, N.; Kulke, R.; Christophers, E.; Schroeder, J.M. Biochem. Biophys. Res. Commun. (1996) 225:1045-1051 Human dermal fibroblasts express ectaxin: Molecular cloning, mRNA expression, and identification of ectaxin sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #authors van Coillie, E.; Froyen, G.; Nomiyama, H.; Miura, R.; Fiten, P.; Van Aelst, I.; Van Damme, J.; Opdenakker, G. Biochem. Biophys. Res. Commun. (1997) 231.726-730 #title Human monocyte obemotactic protein-2: cDNA cloning and regulated expression of mRNA in mesenchymal cells.
                                                                                                                                                                                                                                                                                                                                                               ##cross-references EMBL:275668; NID:g1531982; PID:e251275; PID:g1531983 ##experimental_source dermal fibroblast or This protein has eosinophil specific chemotatic activity. FPICATION #superfamily macrophage inflammatory protein this fibroblast fibroblast
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Gaps
                                    "Comman in the Homo sapiens #common_name man 01-Nov-1996 #text_change
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larity 75.0%; Pred. No. 6.01e-06;
Conservative 2; Mismatches 1.
#type complete
                        human
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                     eotaxin precursor -
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JC2417
JC2417
Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.; Scheit, K.H.
Biochem. Biophys. Res. Commun. (1994) 205:148-153
Porcine luteal cells express monocyte chemoattractant
protein-2 (MCP-2): Analysis by cDNA cloning and northern
                                                                                                                                                                                                                           JC2417 *type complete
monocyte chemoattractant protein-2 precursor - pig
#formal_name Sus scrofa domestica #common_name domestic pig
24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            #domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein-2 #status
predicted #label MAT
#length 99 #molecular-weight 10903 #checksum 7556
                                                                0; Gaps
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Ouery Match 88.5%; Score 85; DB 2; Length 99; Best Local Similarity 75.0%; Pred. No. 6.01e-06; Matches 9; Conservative 3; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ##molecule_type mRNA
##Tesidues 1-99 ##label HOS
##experimental_source corpus luteum
FEATURE
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#cross-references MUID:95091716
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| EICADPKEKWVQ 12
                                                                                       73 EVCADPKERWVR 84
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| EICADPKEKWVQ 12
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Search completed: Fri Feb 4 17:39:13 2000 Job time : 25 secs.



protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 17:45:38 2000; MasPar time 5.03 Seconds 130.258 Million cell updates/sec MPsrch_pp

Tabular output not generated.

>US-09-150-813-66 (1-12) from US09150813.pep 95 Description: Perfect Score: Title:

1 EICADPTQKWVQ 12 Sednence:

PAM 150 Gap 15 Scoring table:

179066 seqs, 54579741 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

sptremb19 Database:

1:sp_archea 2:sp_bacteria 3:sp_fungi 4:sp_human 1:sp_archebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle 9:sp_phage 10:sp_plant 11:sp_rodent 12:sp_unclassified 13:sp_vertebrate 14:sp_virus

Mean 25.123; Variance 34.142; scale 0.736 Statistics:

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Pred. No.	5.57e-04	9.25e-04	9.25e-04	2.53e-03	6.81e-03	6.81e - 03	1.11e-02	1.11e-02	1.11e-02	1.11e-02	2.94e-02	20-032	70000	7.66e-02	7.66e-02	7.66e-02	7.66e-02	2 130-01	1000	4.90e-01	4.96e-01	7.83e-01	
Description	LD78 ALPHA BETA PRECUR	NEUROTACTIN.	FRACTALKINE.	LYMPHOTACTIN PRECURSOR	ORF K6.	MPIF-2.	CC CHEMOKINE ABCD-1.	CC CHEMOKINE ST38 PREC	IL-10-INDUCIBLE CHEMOK	RETA CHEMOKINE EXODUS-	DANTES DEFCTIRSOR	MANUEL FINE CONCOUNTS	INTERLEUKIN-8 (FRAGMEN	CHEMOKINE EXODUS.	CC CHEMOKINE EXODUS.	BETA CHEMOKINE EXODUS-	SMALL INDUCIBLE CYTOKI		CC CHEMONING I	K60 PROTEIN PRECURSOR.	B LYMPHOCYTE CHEMOATTR	MACROPHAGE-DERIVED CHE	FIGURE STATE
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ALIGNMENTS

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PRT; CREATED) LAST SEQU LAST ANN (FRAGMENT). TA; VERTEBE	, NARUSE K., NAKASHIMA MOTO Y., NOMIYAMA H., I EMBL/GENBANK/DDBJ DATA CYTOKINES_CC; 1.	χ :: Δ .:	PRT;	05, CREATED) 05, LAST SEC 08, LAST AND
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14745 014745 014745 01-007-1996 (TREMI 01-007-1996 (TREMI 01-JAN-1999 (TREMI DD78 ALPHA BETA PI HOMO SAPIENS (HUM EURARYOA, METAZOI CATARRHINI, HOMINIA	SEGUENCE FAIN TISSUE-BRAIN ISHIZUKA K., IGATA-YI KATSURAGI S., KIN Y., MIXAKAWA I. Y., SUBMITTED (AUG-1995) EMBL, D63785; D101050 PROSITE: PS00472; SWA, PFAM, PF00048; i18; 1	. 변 늦 .	55 QVCADPSEE 29 1 EICADPTQR 28 1 EICADPTQR 29 1 EICADPTQR 20 1 EICAPPTQR 20 1 EIC	035188; 01-JAN-1998 01-JAN-1998 01-NOV-1998 NEUROTACTIN SCYDI.
RESULT ID O ID DT O DT O DT O DT O DE L DE L OC OC E	R R R R R R R R R R R R R R R R R R R		Db Qy RES	AC DIT

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MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                           MEDLINE, 97320499.
PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J., GOSSELIN M., MA J., DUSSAUIT B., WOOLF B., ALPERIN A., CULPEPPER J., GUTIERREZ.FAMOS J.C., GEARING D., "Neurotactin, a membrane-anchored chemokine upregulated in brain inflammation.":
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SEQUENCE FROM N.A.
STRAIN-BALB/C; TISSUE-BRAIN;
FOSZI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
ZLOTNIK A., BAZAN J.F.;
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U92565; G2459677; -.
PFAM; PF00048; il8; 1.
SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;
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01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
LYMPHOTACTIN PRECURSOR.
GALLUS GALLUS (CHICKEN).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Match 77.9%; Score 74; DB 11; Length 395; Local Similarity 72.7%; Pred. No. 9.25e-04; es 8; Conservative 2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 74; DB 11; Length 395;
Pred. No. 9.25e-04;
2; Mismatches 1; Indels
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01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
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SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF006742; G2827882;
                                                                                                                                                                                                                                                                                                                  NATURE 387.611.617(1997).
EMBL, AF010586; G2317698; -.
PRAD, MG1.1097153; SCYD1.
PPAD, PF00048; 118: 1.
SEQUENCE 395 AA: 42098 MW; E3CD0612 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 72.7%;
Matches 8; Conservative
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01-NOV-1998 (TREMBLREL.
FRACTALKINE.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73 FCADPKEKWVQ 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 ICADPTOKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    73 FCADPKEKWVQ 83
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2 ICADPTQKWVQ 12
                                                                                                                     SEQUENCE FROM N.A.
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TISSUE-SPLEEN;
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035933
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MEDLINE; 97121480.
RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
PARKY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
"Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
SUBMITTED (OCT-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.,
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFO D.,
HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
SUBMITTED (NOV-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 97094384.
MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
"Molecular mimicry of human cytokine and cytokine response pathway
                                                                                    ;
0
                                               Score 72; DB 13; Length 97;
                                                                               3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B., "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus human herpesvirus 8: determinants of its
                                                                                                                                                                          O91158 PRELIMINARY; PRT; 95 AA.
O98158, 012569; TREMBLREL. 02, CREATED)
01-VUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOY-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                      NO RNA STAGE; HERPESVIRIDAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUN R., LIN S.-F., MILLER G.;
SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL. 107509; G1718266; --
EMBL; U7585; G158273; --
EMBL; U93872; G2246546; --
EMBL; U71366; G3551763; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
                                                            Pred. No. 2.53e-03;
0; Mismatches 3;
CHAIN 25 97 LYMPHOTACTIN. SEQUENCE 97 AA; 11131 MW; 3290101C CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10485 MW; 5283348D CRC32;
                                                                                                                                                                                                                                                                                 KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS,
                                                                                                                                                                                                                                                                                                 VIRUSES; DSDNA VIRUSES, NO RNA ST
GAMMAHERPESVIRINAE; RHADINOVIRUS
                                                                                                                                                                                                                                                                                                                                                                                                       genes by KSHV.";
SCIENCE 274:1739-1744(1996).
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J. VIROL. 71:4187-4192(1997).
                                              Query Match
Best Local Similarity 72.78;
                                                                            8; Conservative
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                                                                                                    72 ICVHPEQKWVQ 82
                                                                                                                                  2 ICADPTOKWVQ 12
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                                            Query Match
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73.7%; Score 70; DB 14; Length 95;

Query Match

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SEQUENCE FROM N.A.
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SCIUROGNATHI; MURIDAE; MURINAE; MUS
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                                                                                                                                                       HOMO SAPIENS (HUMAN).
EURARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Activated murine B lymphocytes and dendritic cells produce a novel CC chemokine which acts selectively on activated T cells."; J. EXP. MED. 188:451-463(1998).
EMBL, AF052505, G3378116;
                                                                                                                                                                                                                                                                                                            0; Gaps
            Gaps
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                                                                                                                                                                                                   PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T., NARDELLI B., PIPPALLA V., GENTZ S., THOTAKURA R., PARMELEE D., GENTZ R., GAROTTA G.;
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Pest Local Similarity 72.7%; Pred. No. 1.11e-02;
Matches 8; Conservative 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                      Score 70; DB 4; Length 119;
Pred. No. 6.81e-03;
3; Mismatches 2; Indels
  Pred. No. 6.81e-03;
4; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1998 (TREMBLREL. 08, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
CC CHEMOKINE ABCD-1.
MUS MUSCULUS (MOUSE).
                                                                                                               01-JUL-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                        J. EXP. MED. 0:0-0(0).
EMBL, 1085768; G1916222; -
FPAM: PF00048; il8; 1.
FROMS II 9 AA, 13119 MW; CDF526F0 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92 AA; 10302 MW; BC7219A0 CRC32;
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                                                                                              PRT; 119 AA.
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Best Local Similarity 58.3%;
     Best Local Similarity 58.3%;
Matches 7; Conservative
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                                                                                                PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                1 EICADPTOKWVO 12
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1 EICADPTQKWV 11
                                   74 QICADPSKNWVR 85
                                                       1 EICADPTOKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
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MEDLINE; 98353531.
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000175
000175;
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088430
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HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                          MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
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MEDLINE: 98308096.
YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
HANGOC G., KWON B.S.;
"ISOLAtion and characterization of LMC, a novel lymphocyte and
monocyte chemoattractant human CC chemokine, with myelosuppressive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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SHOUDAL K., HIESHIMA K., FUKUDA S., IIO M., MIURA R., IMAI T.,
YOSHIE O., NOMIXAMA H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Structure of a region of 181 kb containing five CC chemokine
                                                                                                                                                                                                                                                                                        LESSLAUER W.;
LESSLAUER W.;
"A novel rat CC chemokine, identified by targeted differential display, is upregulated in brain inflammation.";
J. NEUROLIMMUNOL. 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 69; DB 11; Length 97;
Pred. No. 1.11e-02;
2; Mismatches 1; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
SUBMITTED (NOV-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                      VILLARES R.;
SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF053313; G3551819; -.
EMBL; AJ007862; E1312757; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE) 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE) CC CHEMOKINE ST38 PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         activity.";
BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
EMBL: U91746; G2581781; -.
EMBL: AB007454; D1024963; -.
EMBL: AF088219; G3719365; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POTENTIAL.
CC CHEMOKINE ST38.
053405BD CRC32;
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01-JAN-1998 (TREMBLREL. 05, CREATED)
01-JAN-1998 (TREMBLREL. 06, LAST SEQU
01-NOY-1998 (TREMBLREL. 08, LAST ANN
1L-10-INDUCIBLE CHEMOKINE.
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                                                                                                                                                                            SCIUROGNATHI; MURIDAE; MURINAE; MUS
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28 97
97 AA; 10826 MW;
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Best Local Similarity 70.0%;
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NOMIYAMA
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062812;
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099664;
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EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.

NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL, AF001979; G22624925; -.
EMBL, AB002409; D1022673; -.
EMBL, AB002409; D1022673; -.
SEQUENCE 134 AA; 14646 MW; FE86A239 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
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                                                                                                                                                                                                                                                                                                         HEDRICK J.A., ZLOTNIK A.;
   "Identification and characterization of a novel beta chemokine
containing six conserved cysteines.";
J. IMMUNOL. 159:1589-1593(1997).
                                              Ouery Match 72.6%; Score 69; DB 4; Length 120; Best Local Similarity 50.0%; Pred. No. 1.11e-02; Matches 6; Conservative 4; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ouery Match 72.6%; Score 69; DB 4; Length 134; Best Local Similarity 66.7%; Pred. No. 1.11e-02; Matches 8; Conservative 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                          HROMAS R.A., GRAY P., KLEMSZ M., FIFE K., BROXNEYER H.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
HEDBICK J.A., ZLOTNIK A.;
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                     CREATED)
LAST SEQUENCE UPDATE)
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LAST ANNOTATION UPDATE)
                              120 AA; 13600 MW; A079DF66 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     91 AA.
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                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
 EMBL; AF055467; G3395776; -. PFAM; PF00048; 118; 1.
                                                                                                                                                                               04,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JUN-1998 (TREMBLREL. 06, 01-JUN-1998 (TREMBLREL. 06, 01-NOV-1998 (TREMBLREL. 08,
                                                                                                                                                                                              BETA CHEMOKINE EXODUS-2.
HOMO SAPIENS (HUMAN).
                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                   01-JUL-1997 (TREMBLREL.
01-JUL-1997 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
                                                                                                                                                                                         (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                      74 EVCTNPNDDWVQ 85
                                                                                                          1 EICADPTQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73 ELCADPKELWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |:|||| : |||
| EICADPTQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
JANG J.S., KIM B.E.;
                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                  MEDLINE; 97400322
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                              SEQUENCE
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043646;
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HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HEOMAS R., GRAY P.W., CHANTRY D., GODISKA R., KRATHWOHL M., FIFE K., BELL G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., BROXMEYER H.E., KLEMSZ M.J.;
"Clothing and characterization of exodus, a novel beta-chemokine.";
BLOOD 89:3315-3322(1997).

EMBL: U64197; G1778717; -.
                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                      "Structure of a region of 181 kb containing five CC chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EQUUS CABALLUS (HORSE).
EUKARYOTA, METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PERISSODACTYLA; EQUIDAE; EQUUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
                                                                                                                                                                                                                                                                                                                        Score 67; DB 4; Length 91,
Pred. No. 2.94e-02;
***amatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 66; DB 6; Length 97;
Pred. No. 4.76e-02;
2; Mismatches 3; Indels
                                                                                                            genes.";
SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL, AF041341; G2905632;
EMBL, AF08219; G3719366;
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ENBLYTED (APR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF062377; G3126973; -.
NON_TER 97 97
SEQUENCE 97 AA; 10742 MW; 00396FBF CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-AUG-1998 (TREMBLREL. 07, CREATED)
01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                   CF404FAD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95 AA.
                                                                                                                                                                                                                                                         POTENTIAL.
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01-MAY-1997 (TREMBLREL. 03, LAST SEQ
01-NOV-1998 (TREMBLREL. 08, LAST ANNO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
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TISSUE=BRONCHOALVEOLAR TISSUE;

    SIGNAL
    1
    23

    CHAIN
    24
    91

    SEQUENCE
    91 AA;
    9990 MW;

                                                                                                                                                                                                                                                                                                                                           70.5%;
Similarity 50.0%;
6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATARRINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 69.5%;
Best Local Similarity 58.3%;
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INTERLEUKIN-8 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                             71 OVCANPEKKWVR 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 EICADPTOKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 EICADPTOKWVQ 12
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                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                 SEQUENCE FROM N.A.
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MEDLINE; 97275143.
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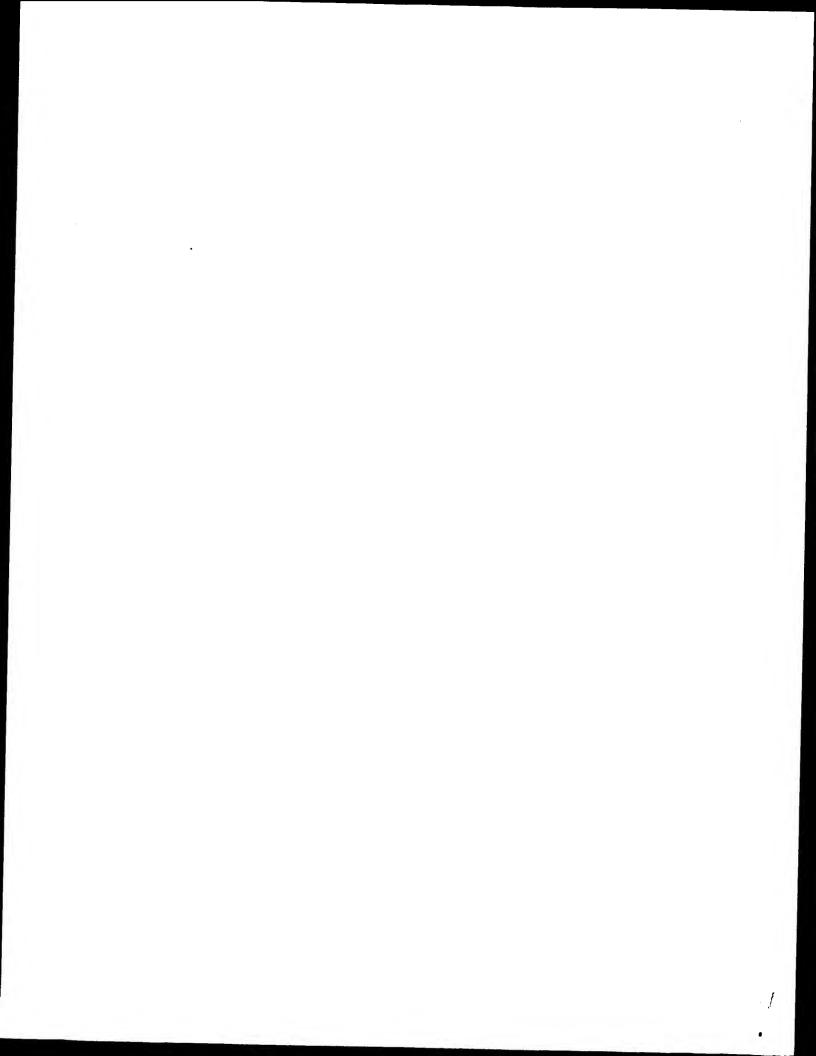
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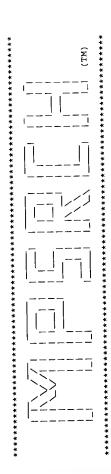
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TISSUE=TOTAL FETUS;
HROMAS R.A.;
     RR RA DR DR DR SQ
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01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
BETA CHEMOKINE EXODUS-2.
SCYAZI.
MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                ö
                                                                                                                                                                                                                                                               RATTUS NORVEGICUS (RAT).
EUKARYOTA, METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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HROMAS R., KIM C.H., KLENGZ M., KRATHWOHL M., FIFE K., COOPER S., SCHNIZLEIN-BICK C., BROXMEYER H.E.; SIGNIZLEIN-BICK C., BROXMEYER H.E.; SIGNIZLEIN-BICK C., BROXMEYER H.E.; with a unique 37-amino acid carboxyl-terminal extension."; J. IMMUNOL. 159:2554-2558(1997).
                                                                                   Gaps
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                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN=FISHER 344; TISSUE-BRAIN;
UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 65; DB 11; Length 96; Pred. No. 7.66e-02; 1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                           STRAIN-SPRAGUE-DAWLEY;
KELNER G.S., MACIEJEWSKI-LENOIR D., LEE E.D., MAKI R.A.;
SUBMITTED (FEB-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                       Score 65; DB 4; Length 95;
Pred. No. 7.66e-02;
2; Mismatches 2; Indels
                                                                                                                                                                                                                01-MAY-1997 (TREMBLREL. 03, CREATED)
01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          96 AA; 10875 MW; 3FC09DD8 CRC32;
      PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
SEQUENCE 95 AA; 10691 MW; 1526B4C0 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Mismatches
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                                                                                                                                                                                        96 AA.
                                                                                                                                                                                                                                                                                          SCIUROGNATHI; MURIDAE; MURINAE; RATTUS
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                                                                                                                                                                                        PRT;
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Best Local Similarity 70.0%;
Matches 7; Conservative
                                                         Query Match 68.4%;
Best Local Similarity 60.0%;
Matches 6; Conservative
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                                                                                                                                                                                         PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73 VCADPKQIWV 82
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2 ICADPTQKWV 11
                                                                                                                                                                                                                                                        CC CHEMOKINE EXODUS
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2 ICADPTQKWV 11
                                                                                                              72 VCANPKQTWV 81
                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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009006
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P97884
P97884;
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Gaps
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                                                                                                                         Length 133;
                                                                                                                         Score 65; DB 11; Length 133.
Pred. No. 7.66e-02;
3; Mismatches 2; Indels
EMBL; U88322; G316969; TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U88322; G316969; -.
MGD; MGI:1097677; SCYA21.
PFAM, PF00048; il8; 1.
SEQUENCE 133 AA; 14600 MW; B34A5E22 CRG32;
                                                                                                                                                                                                                                                                                                                 Search completed: Fri Feb 4 17:46:47 2000 Job time : 69 secs.
                                                                                                                                Query Match
Best Local Similarity 58.3%;
Matches 7; Conservative
                                                                                                                                                                                                                                          |:||:| : |||
| EICADPTQKWVQ 12
                                                                                                                                                                                                                  73 ELCANPEEGWVQ 84
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protein - protein database search, using Smith-Waterman algorithm MPsrch_pp

Fri Feb 4 17:51:34 2000; MasPar time 5.03 Seconds 130.146 Million cell updates/sec

Tabular output not generated.

>US-09-150-813-67 (1-12) from US09150813.pep 100 Title:

1 EICADPKERWVR 12 Description: Perfect Score: Sequence:

PAM 150 Gap 15 Scoring table:

179066 seqs, 54579741 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

sptremp19 Database:

1:sp_archea 2:sp_bacteria 3:sp_fungi 4:sp_human 1:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle 9:sp_phage 10:sp_plant 11:sp_rodent 12:sp_unclassified 13:sp_vertebrate 14:sp_virus

Mean 25.277; Variance 37.848; scale 0.694 Statistics: pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Pred. No.	2.23e-03	3.58e-03	3.58e-03	3.58e-03	3.58e-03	5.72e-03	9.11e-03	9 110-03	000	1.45e-U2	1.45e-02	1.45e-02	3.62e-02	1.40e-01	3 380-01	00000	3.38e-UI	8.04e-01	8.04e-01	9 010-01	10000	1.23e+00	1.236+00
	Description	CC CHEMOKINE-1.		NEUROTACTIN.	FRACTALKINE.	CX3C CHEMOKINE PRECURS	CO CHEMOKINE ST38 PREC	MACCOUNTS - DEBIVED CHE	THE COLUMN THE EXCENSE	BETA CHEMONINE EACOOS	RANTES PRECURSOR.	ORF K6.	CC CHEMOKINE EXODUS.	CHEMOKINE EXODUS.	TOTO ALDEA BETTA DRECTIR	MATERIAL POLICE CONTRACTOR	MPIF-2.	IL-10-INDUCIBLE CHEMOK	LFCA-1 PROTEIN PRECURS	KEN PROTEIN PRECURSOR.	T DOKUMINING MEMBERS	CHILIN SINIBELESE I.	SMALL INDUCIBLE CYTORI	BETA CHEMOKINE EXODUS-
	D CI	093238	088430	035188	03550	20000	00000	00000	00000	000085	043646	098158	P97884	799000	100000	014/40	0001/5	015467	093442	073012	41000	088126	00600	900600
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مو	Query Match Length	7 7 7 7 7	0.0	0.0	7 0	0.0	10.0	0.4.	73.0	73.0	72.0	72.0	7.6		0.07	0.79	65.0	65.0	0.69		0.50	63.0	62.0	62.0
	Score	76	7 -) L	1 /	0 1	0 -	14	73	73	7.2	7.2	4 C	1 -	2 !	67	65	7.5	2 0	3 (69	63	62	62
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045395 045347 067634 067634 06734211 034211 0332385 0932385 0932385 0932385 0972744 097016	067634	086395	097013	061090	023533	046178	015598	043497 054898	055038	062812	010466	
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PRT; 101 AA. 08, CREATED) 08, LAST SEQUENCE UPDATE) 08, LAST ANNOTATION UPDATE) CARP). CARP). OSTALOPHYSI; CYPRINIFORMES; CYPRINOIDEA; CYPRINUS.	nmalj	Length 101; ; Indels		EUTHERIA; RODENTIA; RUEDL C.,
E) TERYC ES; (o mai	ngth Ind		
ATE) PDATI INOP'	ous t TA BA			DATE: UPDA: MMAL:
; 101 AA. EED) SEQUENCE UPDATE) ANNOTATION UPDATE) ATEBRATA; ACTINOPTE	ANO T.; okine homologou NBANK/DDBJ DATA 9CFBD540 CRC32;	Score 76; DB 13; Pred. No. 2.23e-03 3; Mismatches		; 92 AA. ED) SEOUENCE UPDATE) ANNOTATION UPDATE) TEBRATA; MAMMALIA; TUS. OF., SPELETAS M.,
101 JENCH OTATI	.; home /DDB.	, 2. matc		92 DD) EEQUENCE INNOTAT: FEBRATA
PRT; EATED) ST SEQI ST ANN VERTEB	ANO TOKINE ABANK	Score 76; DB 1. Pred. No. 2.23e 3; Mismatches		CREATED) LAST SEG LAST ANN LAST ANN , VERTEE (AE; MUS.
PRT; 08, CREATED) 08, LAST SEC 08, LAST ANN CARP). CARP). CARP OSTABLOPHYSI	, YP chemc L/GEN	Scor Prec		PRT; 8, CREATE 8, LAST S 8, LAST A 8, LAST A ATA; VERT RINAE; MU
08, 08, 08, CARE CARE	IN D CC C EMB;	76.0%; 66.7%; ative		RY; L. 08, L. 08, L. 08, M. HORDAT
NARY; REL. REL. REL. REL. CHO: CHO: TEI;	, SH carp () TO	76. 66. vati	83	LNARY LREL LREL LREL LREL 1. E). ; CH(DAE;
PRT; 101 AA. 993238 903238 101-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE) 01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE) 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE) 02-C CHEMOKINE-1. CC CHEMOKINE-1. CC CHEMOKINE-1. EUKRANOTA; WENTAZOA, SCHARLOHYSI; CYPRINIPORMES; CYPRINOIDEA, TELEOSTEI; DUTELEOSTEI; CSTARIOHYSI; CYPRINIPORMES; CYPRINOIDEA,	SEQUENCE FROM N.A. SEQUENCE FROM N.A. SEQUENCE FROM N.A. SEQUENCE R., NAKAO M., SHIN D., YANO T.; "CDNA cloning of a carp CC chemokine homologous to mammalian "cotaxins"; SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; ABD10469; D1032417; - SEQUENCE 101 AA; 11266 MW; 9CFBD540 CRC32;	76.0% arity 66.7% Conservative		PRELIMINARY; PRT; 92 AA. 988430; 988430; 98430; 98431
PRE 3 (TR 3 (TR 3 (TR 1 (TR NE-1.	ROM DARRIUG (JAN-101	Similarity 8; Conse	PKLR - - -	PR (T 98 (T 98 (T 99 (T
; -1998 -1998 MOKII US CJ US CJ OTA; TEI;	CE F K., clon ns., TED AB01	ch 11 Si	EFCSDPKLRWVK : : : EICADPKERWVR	2 0 0; 0; W-199; W-199; W-199; WCUINSCUINSCUINSCUINSCUINSCUINSCUINSCUINS
1093238 PR: 093238 (010-NOV-1998 (TT: 01-NOV-1998 (TT: 01	SEQUENCE FROM N.A. SEQUENCE FROM N.A. FUJIKI K., NAKAO M "CDNA cloning of a submirted (JAN-199 SEMBL; AB010469; D1 SEQUENCE 101 AA;	/ Mat Loca hes	72 E	2 PRELIM 088430 PRELIM 01-NOV-1998 (TREMB
RESULT O9 AC O9 DT O1 DT O1 DE CC OS CX OC TE OC CY CC		Query Match Best Local Matches		SULE
RES ID DT DT DT OC OC	RR RA RE RI	J	Db Qy	RES DT DT D

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EUKARYOTA: METAZOA: CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                              Gaps
                     "Activated murine B lymphocytes and dendritic cells produce a novel CC chemokine which acts selectively on activated T cells.";
J. EXP. MED. 188:451-463(1998).
EMBL; AF052505; G3378116;
                                                                                                                                                                                                                                                                                                                                                                            PAN Y., CLARE L., HONG 2., DOLICH S., DEEDS J., GONZALO J., VATH J., GONZELIN M., MA J., DUSSAULT B., WOOLF B., ALPERIN A., CULPEPPER J., GUTIERREZ-RAMOS J.C., GEARING D.; "Neurotactin, a membrane-anchored chemokine upregulated in brain inflammation.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                             ó;
SHIMIZU T., SEIDL T., ANDERSSON J., MELCHERS F., ROLINK A.G., SIDERAS P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
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STRAIN-BALB/C; TISSUE-BRAIN;
ROSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
SLOTHIK A., BAZAN J.F.;
SUBMITTED (MAR-1997) T EMBL/GENBANK/DDBJ DATA BANKS.
ENBL; U92565; G2459677; -..
PFAM; PF00048; 118; 1.
SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;
                                                                                               Score 75; DB 11; Length 92;
Pred. No. 3.58e-03;
4; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 395;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 75.0%; Score 75; DB 11; Length 395; Best Local Similarity 72.7%; Pred. No. 3.58e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 75; DB 11; Length 395
Pred. No. 3.58e-03;
3; Mismatches 0; Indels
                                                                                                                                                                                                                                                          LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JAN-1998 (TREMBLREL. 05, CREATED)
01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                     NATURE 387 611-617(1997).
EMBL, AF010586; G2317698; -.
PFAM, PF00048; 118; 1.
SEQUENCE 395 AA; 42098 MW; E3CD0612 CRC32;
                                                                     92 AA; 10302 MW; BC7219A0 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        395 AA.
                                                                                                                                                                                                                                                CREATED)
                                                                                                                                                                                                                         PRT;
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                                                                                             Query Match
Best Local Similarity 58.3%;
                                                                                                                        7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity 72.7%;
les 8; Conservative
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                                                                                                                                                                                                                      PRELIMINARY;
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                                                                                                                                            74 DICADPROVWVK 85
                                                                                                                                                         : [|[||:: ||:
1 EICADPKERWVR 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. MFDLINE; 97320499.
                                                                                                                                                                                                                                                                               NEUROTACTIN.
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                                                                       SEQUENCE
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035188
035188;
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EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CAȚARRHINI; HOMINIDAE; HOMO.
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
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ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRWANN J., MASON T.M.,
BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
"Homo sapiens Chromosome 16 BAC clone CIT987SK-A-152E5.";
SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BAZAN J.F., BACON K.B., HARDIMAN G., WANG W., SOO K., ROSSI D., GREAVES D.R., ZLOTNIK A., SCHALL T.J.; "A new class of membrane-bound chemokine with a CX3C motif."; NATURE 385:640-644(1997).
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J. NBUROIMMUNOL. 0:0-0(1998).
              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 75; DB 4; Length 397;
Pred. No. 3.58e-03;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                              P8423 PRELIMINARY; PRT; 397 AA. P78423, 00672; 01-MAY-1997 (TREMBLREL. 03, CREATED) 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE) 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF053313; G3551819; -.
EMBL; AJ007862; E1312757; -.
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01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
CC CHEMOKINE ST38 PRECURSOR.
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C8093D7D CRC32;
           3; Mismatches
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CHAIN 25 397 CX
SEQUENCE 397 AA; 42202 MW;
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EMBL; U84487; G188523; -.
EMBL; ACO04382; G3252821; -.
PFAM; PF00048; 118; 1.
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Similarity 72.7%;
8; Conservative
   Conservative
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                                                                  73 FCADPKEKWVQ 83
                                                                                                                                 2 ICADPKERWVR 12
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Best Local Similarity
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SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                         HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
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GODIENCE FROM N.A.
GODIENA R., CHANTRY D., RAPORT C.J., SOZZANI S., ALLAVENA
MANTOVANI A., GRAY P.W.;
J. EXP. MED. 185:0-0(0).
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Pred. No. 9.11e-03;
2; Mismatches 2; Indels
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                                                                                    01-JUL-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
BETA CHEMOKINE EXODUS-2.
                                                                                                                                                                                                                                                                                                                              04, CREATED)
04, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
                                              CC CHEMOKINE ST38.
053405BD CRC32;
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MACROPHAGE-DERIVED CHEMOKINE PRECURSOR.
                            POTENTIAL.
                                                                                                                                                                                                                                                                                              PRT;
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93 AA; 10580 MW;
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EMBL; U83239; G2062425; -.
EMBL; AC004382; G3252820; -.
PFAM; PF00048; il8; 1.
                              1 27
28 97
97 AA; 10826 MW;
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                                                                                                Query Match
Best Local Similarity 63.6%;
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01-JUL-1997 (TREMBLREL.
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2 ICADPKERWVR 12
                                                                                                                                                                                  74 VCADPKQNWVK 84
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                                    SIGNAL
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CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                             SEQUENCE FROM N.A.

SEGUENCE PROM N.A.

NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,

NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;

SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

EMBL; U88320; G2196320; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           structure of a region of 181 kb containing five CC chemokine
MEDLINE; 97400322.
HEDRICK J.A., ZLOTNIK A.; "Identification of a novel beta chemokine "Identification and characterization of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 72; DB 4; Length 91;
Pred. No. 1.45e-02;
4; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Match 73.0%; Score 73; DB 4; Length 134; Local Similarity 75.0%; Pred. No. 9.11e-03; nes 9; Conservative 2; Mismatches 1; Indels nes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 91;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       genes.";
SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JANG J.S., KIM B.E.;
SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                    SEQUENCE FROM N.A.
HEDRICK J.A., ZLOTNIK A.;
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06, CREATED)
06, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                            14646 MW; FE86A239 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CF404FAD CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         91 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; AF043341; G2905632; -...
EMBL; AF088219; G3719366; -...
PROSITE; PS00472; SMALL_CXTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LT 10 PRELIMINARY; PRT; Q981158; 012569; 01-FEB-1997 (TREMBLREL. 02, CREATED)
                                                          containing six conserved cysteines.";
J. IMMUNOL. 159:1589-1593(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                     EMBL; AF001979; G2624925; --
EMBL; AB002409; D1022673; --
PFAM; PF00048; 118; 1.
SEQUENCE 134 AA; 14646 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 23
24 91
91 AA; 9990 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              72.0%;
50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-JUN-1998 (TREMBLREL.
01-JUN-1998 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           71 QVCANPEKKWVR 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 EICADPKERWVR 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73 ELCADPKELWVO 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |:|||||| ||:
| EICADPKERWVR 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;

SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.

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RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D., PARRY J.P., PERUZI D., EDELMAN I.S., CHANG Y., MOORE P.S.; "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
                                                                                                                                                                                                                                                                                                                                                                    RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
SUBMITTED (OCT-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFO D.,
HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
SUBMITTED (NOV-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                            MORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
"Molecular minicry of human cytokine and cytokine response pathway
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
"Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus human herpesvirus 8: determinants of its pathogenicity?";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 72; DB 14; Length 95;
Pred. No. 1.45e-02;
1; Mismatches 3; Indels
                                             KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
GAMMAHERPESVIRINAE; RHADINOVIRUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUR R., LINS.-F., MILLER G.;
SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL: U75698; G1718266; -
EMBL: U75698; G158273; -
EMBL: U71366; G2246546; -
EMBL: U71366; G3351763; -
PPAM; PF00048; 118; 1
HYPOTHETICAL PROTEIN.
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                      PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10485 MW; 5283348D CRC32;
                                                                                                                                                                                        SCIENCE 274:1739-1744(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . VIÑOL. 71:4187-4192(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         / Match 72.0%;
Local Similarity 66.7%;
                                                                                                                                                                                                           [2]
SEQUENCE FROM N.A.
                                                                                                              SEQUENCE FROM N.A.
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                                                                                                                                  97094384
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                                                                                                                                                                                genes by KSHV."
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Gaps

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01-MAY-1997 (TREMBLREL. 03, CREATED) 01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE) 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)

CHEMOKINE EXODUS

95 AA

PRT;

PRELIMINARY;

LT 12 Q99664 Q99664;

RESULT

Length 96; 1; Indels

Score 72; DB 11; I Pred. No. 1.45e-02;

Query Match
Best Local Similarity 63.6%;
Matches 7; Conservative

:[|||||: ||: 2 ICADPKERWVR 12 73 VCADPKQIWVK 83

3; Mismatches

96 AA; 10875 MW; 3FC09DD8 CRC32;

SIGNAL. SEQUENCE

LESSLAUDE W.;
"A novel rat CC chemokine, identified by targeted differential display, is upregulated in brain inflammation.";
J. NEUROIMMUNCL. 0.0-0(1998).
EMBL: U90447; G189246;
EMBL: AF053312; G3551817;
PFAM; PF00048; 118; 1.

SEQUENCE FROM N.A. STRAIN=FISHER 344; TISSUE=BRAIN; UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,

KELNER G.S., MACIEJEWSKI-LENOIR D., LEE E.D., MAKI R.A.; SUBMITTED (FEB-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

STRAIN-SPRAGUE-DAWLEY;

SEQUENCE FROM N.A.

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CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-ON-1999 (TREMBLREEL. 09, LAST ANNOTATION UPDATE)
LO78 ALPHA BETA PRECURSOR (FRAGMENT).
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                  MEDLINE: 97275143.
HROMAS R., GRAY P.W., CHANTRY D., GODISKA R., KRATHWOHL M., FIFE K. BELL G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., Cloning and characterization of exodus, a novel beta-chemokine."; BLOD 89:3315-3322(1997).
EMBL: U64197; GI778971.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                               Score 70; DB 4; Length 95;
Pred. No. 3.62e-02;
4; Mismatches 1; Indels
                                                                                                                                                                                                                                                                        10691 MW; 1526B4C0 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                               80 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                    CATARRINI; HOMINIDAE; HOMO
                                                                                                                                                                                                                                                                                                Match 70.0%;
Local Similarity 54.5%;
es 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                           HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; C
                                                                                                                                                                                                                                                                                                                                               72 VCANPKQTWVK 82
                                                                                                                                                                                                                                                                                                                                                                      2 ICADPKERWVR 12
                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                         95 AA;
                                                                                                                                          TISSUE=PANCREAS;
                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                Query Match
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Q14745
Q14745;
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8; Conservative

fatches

74 QICADPSKNWVR 85 LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)

01 MAY-1997 (TREMBLREL. 03, C)
01-MAY-1997 (TREMBLREL. 03, Li
01-NOV-1998 (TREMBLREL. 08, Li
CC CHEMOKINE EXODUS.
RATTUS NORVEGICUS (RAI).

CREATED) PRT;

PRELIMINARY;

LT 11 P97884 P97884;

RESULT

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Gaps

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Job time : 56 secs.
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T., MARDELLI B., PIPPALLA V., GENTZ S., THOTAKURA R., PARMELEE D., GENTZ R., GAROTTA G.; J. EXP. MED. 0:0-0(0).

EMBL, U85768 (191525; -. PRAH, PRO0048; 118; 1. SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;
                                                            ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K., KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M., MIURA R., MIYAKAWA T.; SUBMITTED (AGC-1995) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; D63785; D1010501; -. EMBL; D63785; D1010501; -. PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                         2; Indels
                                                                                                                                                                                                                                                                                                                                                                                           Score 67; DB 4; Length 80;
Pred. No. 1.40e-01;
3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
SUBMITTED (NOV-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUL-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT; 120 AA.
                                                                                                                                                                                                                                                                                     POTENTIAL.
LD78 ALPHA BETA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT; 119 AA.
                                                                                                                                                                                                                                                                                                                                                       3F87F1C6 CRC32;
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01-JAN-1998 (TREMBLREL. 05, LAST SEQU
01-NOV-1998 (TREMBLREL. 08, LAST ANNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                 80 80
80 AA; 8857 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IL-10-INDUCIBLE CHEMOKINE.
                                                                                                                                                                                                                                                                                                                                                                                                  Match
Local Similarity 58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                              16
>80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            72 QFCGDPKQEWVQ 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 EICADPKERWVR 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                65 QVCADPSEEWVQ 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 EICADPKERWVR 12
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TISSUE=LIVER;
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                     [1]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                        NON_TER
SEQUENCE
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000175
000175;
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015467
                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
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Gaps
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                                                                                                                                                                                                                                                                                                 MEDLINE; 98308096.
YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
HANGOC G., KWON B.S.;
SHOUDAL K., HIESHIMA K., FUKUDA S., IIO M., MIURA R., IMAI T.,
                                                                                                                           "Structure of a region of 181 kb containing five CC chemokine genes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match 65.0%; Score 65; DB 4; Length 120; Best Local Similarity 41.7%; Pred. No. 3.38e-01; Matches 5; Conservative 6; Mismatches 1; Indels Matches
                                                                                                                                                                                                      SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                        BIOCHEM, BIOPHYS, RES, COMMUN. 247:217-222(1998).
EMBL, 4091746; 62581781; -.
EMBL, AB007454; D1024963; -.
EMBL, AR08219; 637193365; -.
EMBL, AF055467; G3395776; -.
PPAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Search completed: Fri Feb 4 17:52:30 2000
                                      YOSHIE O., NOMIYAMA H.;
BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             74 EVCTNPNDDWVQ 85
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protein - protein database search, using Smith-Waterman algorithm MPsrch_pp

Fri Feb 4 17:51:10 2000; MasPar time 2.53 Seconds 134.236 Million cell updates/sec Tabular output not generated. Run on:

>US-09-150-813-67 (1-12) from US09150813.pep 100 Description: Perfect Score:

1 EICADPKERWVR 12 Sequence:

PAM 150 Gap 15 Scoring table:

77977 seqs, 28268293 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

swiss-prot37

Database:

Mean 26.354; Variance 35.730; scale 0.738 Statistics:

1:swissprot

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

1.06e-03
EOTAXIN PRECURSOR (EOS
EOTA_CAVPO
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2.83e-03	2.83e-03	2.83e-03	4.61e-03	4.61e-03	4.61e-03	4.61e-03	7.47e-03	7 476-03	7 470-03	000	7.47e-03	7.47e-03	7 470-03	0000	70.ATZ.T	1.94e - 02	3.12e-02	3 120-02	0 0 0	3.12e-02	3.12e-02	4.98e-02		400000	7.97e-02
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SISD_PIG	SISD_CAVPO	SISD HUMAN	MID4 HIMAN	MIT MOTTOR	TAG NO.	MOTOR MOTOR	MCFIL MOOSE	MITE LANI	MISA_HUMAN	IL8 HUMAN	TT.8 MACMU	OTGTO BIT		LTN_MOUSE	MI1B_HUMAN	L'TN HITMAN	MALL A CITAN	MARIOR ALLM	MIIB_MOUSE	MI10 HUMAN	MCP1 RAT	Braka atte	MIIB_KABII	CCC1_HUMAN	MCP3_MOUSE
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                     KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
Structural characterization of a monomeric chemokine: monocyte chemoattractant protein-3."

Chemoattractant protein-3."

FEBS LETT. 385:277-282(1996).

I FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES, BASOPHILS AND EOSINOPHILS. MAY PLAY A ROLE IN NEOPLASIA AND INTEAMMATORY HOST RESPONSES. THIS PROTEIN CAN BIND HEPARIN.

I SIBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.

INTESTINE AND PERIPHERAL BLOOD CELLS. INTERMEDIATE LEVELS SEN IN THE HEART, PLACENTA, LUNG, SKELETAL MOSCLE, THYMUS, COLON, OVARY, SPINAL CORD AND PRACREAS. LOW LEVELS SEEN IN THE BRAIN, LIVER,
                                                                                                                                                                                      -!- INDUCTION: BY INTERFERON GAMMA, MITOGENS AND INTERLEUKIN-1.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JIA G. O., GONZALO J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C., WESERIL B.K., GTIERREZ.RAMOS J.C., "Distinct expression and function of the novel mouse chemotactic protein-5 in lung allergic inflammation."; J. EXP. MED. 184:1939-1951(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
115-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MUS MUSCULUS (MOUSE).
EUKARYOTA: METAZOA: CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MONOCYTE CHEMOTACTIC PROTEIN 2.
PPRROLIDONE CARBOXYLIC ACID.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 98; DB 1; Length 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              No. 3.46e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5DDD5C20 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             104 AA.
                                                                                                                                                                                                                                                                                                                                                                                       PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred.
                                                                                                                                                                                                                                                                                                                                          EMBL; X99886; E279930; ALT_INIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99 AA; 11246 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98.0%;
91.7%;
                                                                                                                                                                                                                                                                                                                                                       Y10802; E294088; -. Y16645; E1253690; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                        PFAM; PF00048; i18; 1.
HSSP; P13500; 1DOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             73 EVCADPKERWVR 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 97053697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SCYA12 OR MCP5.
                                                                                                                                                                                                                                                                                                                                                                                                                                              POLYMORPHISM
                                                                                                                                                                                                                                                                                                                                                                                 MIM; 602283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MCP5_MOUSE
Q62401;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULFID
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 SUBUNIT
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                                                                                                                                                                                                                                                                                                                                                         EMBL;
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                                                                                                                                                                                                            AND LYMPHOCYTES BUT NOT NEUTROHLLS. POTENT MONOCYTE ACTIVE CHEMOKINE THAT SIGNALS BUSINOHLLS. MONOCYTES, GREMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC INVELAMATION AND THE HOST RESPONSE TO PATHOCENS AND MAY PLAY A PLOYDAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.

-! SUBUNIT: HOWODIMER (BY SIMILARITY).

-I TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND FRAY, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.

-I INDUCTION: BY IFN-GAMMA AND LIPOPOLYSACCHARIDE (LDS).

-! SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY CAMAIL, CAPACTURE.
                                                                                                                                                                 J. EXP. MED. 185:99-109(1997).
-1- FUNCTION: CHEWOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES,
                                                                                                                                                                                                                                                                                                                                                                                                                               BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GARCIA ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
LAVIGNE F., HAMID Q., MURPHY P.M., LUSTER A.D.;
"Human monocyte chemoattractant protein (MCP)-4 is a novel CC
chemokine with activities on monocytes, eosinophils, and basophils
induced in allergic and nonallergic inflammation that signals through
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                             "Murine monocyte chemoattractant protein (MCP)-5: a novel CC chemokine that is a structural and functional homologue of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
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PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MONOCYTE CHEMOTACTIC PROTEIN 5.
                                               SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHARO I.F.,
LUSTER A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
CHEMOATTRACTANT PROTEIN 4) (CK-BETAIO) (NCC-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BY SIMILARITY.
BY SIMILARITY.
08FA6C35 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 2.70e-07;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        15-JUL-1998 (REL. 36, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             104 AA; 11659 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; U50712; G1477582; -. EMBL; U66670; G1881583; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               90.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      larity 83.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                      C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MGD; MGI:108224; SCYA12.
PROSITE; PS00472; SMALL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PFAM; PF00048; i18; 1. HSSP; P13500; 1DOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SCYA13 OR MCP4 OR NCC1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HOMO SAPIENS (HUMAN)
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
es 10; Conser
                         MEDLINE; 97149438
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MCP4_HUMAN
Q99616;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -i- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND (FNPQGLA)MCP-4 AS ADDUCED BY DIFFERENTIAL SIGNAL CLEAVAGE. (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.

-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            POWER C.A., MEYER A., RISON S.C.G., GUYE-COULIN F., WELLS T.N.C.;
SUBMITTED (DEC-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-! FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
-! FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
-! EUNCATION SOSTINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
MALL DURING THE DISEASE PROCESS OF ALHEROSCLEROSIS. MAY PLAY A
WALL DURING THE DISEASE PROCESS OF ARTHEROSCLEROSIS. MAY PLAY A
ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
                                                                                                                                       UGUCCIONI M., LOETSCHER P., FORSSMANN U., DEWALD B., LI H., LIMA S.H., LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.; Monocyte chemotactic protein 4 (MCP-4), a novel structural and functional analogue of MCP-3 and eotaxin.";
J. EXP. MED. 183:2379-2384(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MASS SPECTROMETRY: MW-9314; MW_ERR=30; METHOD-MALDI; RANGE=17-98.
MASS SPECTROMETRY: MW-9760; MW_ERR=30; METHOD-MALDI; RANGE=22-98.
MASS SPECTROMETRY: MW-8755; MW_ERR=30; METHOD-MALDI; RANGE=24-98.
INDUCTION: BY INTERLEUKIN-1 MND TMF-ALPHA.
TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE;
FIFFWIGHT, COLON, INDIG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
SEEN IN THE POLIMONARY ARTERY SMOOTH MUSCLE CELLS.
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HSSP, P13500; 1DOL.
CYTOKINE; CHEMOTAXIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                          MEDLINE; 97341179.

BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N., APPELBAUM E., REAPE T.J., BRAWNER M., MAKKANA J., FOLEY J.J., SCHALD D.B., IMBURGIAC., MACNULTY D., MATTHEWS J., O'DONNELL K., O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.; CICLIONING, in Vitro expression, and functional characterization of a novel human CC chemokine of the monocyte chemotactic protein (MCP) family (MCP-4) that binds and signals through the CC chemokine receptor 2B.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DANTE M., GIBSON A.;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
       the CC chemokine receptors (CCR)-2 and -3."; J. IMMUNOL. 157:5613-5626(1996).
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                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
                                                                               SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
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98
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                                                                                                                  TISSUE-FETAL;
MEDLINE; 96235049.
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01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 15, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACIC PROFEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
(MONOCYTE CHEMOATTRACTANT PROTEIN 1) (SMALL INDUCIBLE CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE."; FEBS LETT. 244:487-493(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FURUTANI Y. NOMUTRA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M., LARBEN Y., OPPENHEIM J.J., MATSUSHIMA K.;
LATREM C.G., OPPENHEIM J.J., MATSUSHIMA K.;
"Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCARP)".
BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
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LI Y.S., SHYY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
KOLATITUKUDY P.E.;
The expression of monocyte chemotactic protein (MCP-1) in human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ROLLINS B.J., STIER P., ERNST T., WONG G.G.; "The human homolog of the JE gene encodes a monocyte secretory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SHYY Y.J., LI Y.S., KOLATTUKUDY P.E.; "Structure of human monocyte chemotactic protein gene and its regulation by TPA.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
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LEONARD E.J.;
PYRROLIDONE CARBOXYLIC ACID.
                                                                                                                                                                                           0; Indels
                                                                                                                                           Length 98;
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                                                                                                                                                                    No. 1.34e-06;
                                                                           POTENTIAL.
DF52F6EC CRC32;
                                                                                                                                                                                             2; Mismatches
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                           BY SIMILARITY.
BY SIMILARITY.
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Pred. No.
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74
29
10986 MW;
                                                                                                                                                Query Match
Best Local Similarity 83.3%;
Matches 10; Conservative
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29 AA;
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P13500;
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DISULFID
DISULFID
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chemoattractant protein-3.";
PEBS LETT. 395:277-283(1996);
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
BUT NOT NEUTROPHILS ON EDSINOPHILS. ADGMENTS MONOCYTE ANTI-TUMOR
ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WEBER M., UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
"Deletion of the NH2-terminal residue converts monocyte chemotactic protein 1 from an activator of basophil mediator release to an eosinophil chemoattractant.";
J. EXP. MED. 183:681-685(1996).
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Structure/activity analysis of human monocyte chemoattractant
protein-1 (MCP-1) by mutagenesis. Identification of a mutated protein
that inhibits MCP-1-mediated monocyte chemotaxis.";
J. BIOL. CHEM. 269:15918-15924(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LUBKOWSKI J., BUJACZ G., DOMAILLE P.J., HANDEL T.M., WLODAWER A.;
"The structure of MCP-1 in two crystal forms provides a rare example
of variable quaternary interactions.";
NAT: STRUCT. BIOL. 4:64-69(1997).
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HANDEL T.M., DOMAILLE P.J.;
HARDEL T.M., DOMAILLE P.J.;
METERONUCLEAR (1H, 13C, 15N) NMR assignments and solution structure of the monocyte chemoattractant protein-1 (MCP-1) dimer.";
BIOCHEMISTRY 35:6569-6584(1996).
                                                                                                                                                                                           ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
                                                                                                                                                                                                                                                                                                                                DECOCK B., CONINGS R., LENAERTS J.-P., BILIAU A., VAN DAMME J.; "Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally
                                                                                                                                                                                                          SHABANOWITZ J., HUNT D.F., APPELLA E., "Complete amino acid sequence of a human monocyte chemoattractant, putative mediator of cellular immune reactions."; PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GROWENBORN A.M., CLORE G.M.;
"Modeling the three-dimensional structure of the monocyte chemo-
attractant and activating protein MCAF/MCP-1 on the basis of the
solution structure of interleukin-8.";
PROTEIN ENG. 4:263-269(1991).
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                                                                                                       an monocyte chemoattractant protein-1 (MCP-1).";
EXP. MED. BIOL. 305:47-56(1991).
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vascular endothelium in vitro and in vivo."; MOL. CELL. BIOCHEM. 126:61-68(1993).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
                                                                                   YOSHIMURA T., LEONARD E.J.;
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                                                   SEOUENCE FROM N.A.
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MEDLINE; 97053697
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                                  -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
-!- PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERTS IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT:
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE)
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 ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MISSING: 90% REDUCTION IN ACTIVITY MISSING: 83% REDUCTION IN ACTIVITY. D->A: 90% REDUCTION IN ACTIVITY. N->A: 90% REDUCTION IN ACTIVITY. R->F: 95% REDUCTION IN ACTIVITY. S->Q: 40% REDUCTION IN ACTIVITY.
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Pred. No. 6.50e-06;
3; Mismatches 0; Indels
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Y->D:
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75.0%;
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                                                                                                   C-C) (CHEMOKINE CC).
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1DOL; 12-MAR-97.
1DOM; 14-OCT-96.
1DON; 14-OCT-96.
1MCA; 15-OCT-94.
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                           ATHEROSCLEROSIS.
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101 AA.

STANDARD;

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P52203;

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"Cloning of the gene for bovine monocyte chemoattractant protein-2.";
"Loling of the gene (18.1949).
"In the sene (19.1941) of the sene for partial seneral s
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                               HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTKE W., SCHEIT K.H.; "Porcine luteal cells express monocyte chemoattractant protein-1 (MCP-1): analysis by polymerase chain reaction and cDNA cloning."; BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ARTIODACTYLA; RUMINANTIA; PECORA; BOVOLDEA; BOVIDAE; BOS.
                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-UL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 83; DB 1; Lored. No. 1.10e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ECC3AFB4 CRC32;
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BY SIMILARITY.
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PFAM; PF00048; 118; 1.
HSSP; P13500; 1DON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99 AA; 10976 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      83.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; Z48479; G683717; -
EMBL; X79416; G872313; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73 EICAEPKOKWVO 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 EICADPKERWVR 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
   [1]
SEQUENCE FROM N.A.
                                                                           MEDLINE; 94183284.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SCYA8 OR MCP2
                                                                                                                                                                                                                                                                                                                                              rissue=brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MCP2_BOVIN
Q09141;
                                                                                                                                                                                                                                                                                                                                                                              ZACH O.R.F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -i- SUBUNIT: MONOMER OR HUMUDIMEK; IN EXCELLENCY: (**) - INDICTION: BY INF-ALPHA.
-i- IISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KUMAR A.G., BALLANIYNE C.M., MICHAEL L.H., KUKIELKA G.L., YOUKER K.A.,
LINDSEY M.L., HAWKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        VEINS, AND INFILTRATING LEUKOCYTES.

-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ROSSEN R.D., SMITH C.W., ENTWORDL N.D., FIRCARI C.R., LIRCORN C.D., SMITH C.W., ENTWON M.L.;

"Induction of monocyte chemoattractant protein-1 in the small veins of the ischemic and reperfused canine myocardium.";

cIRCULATION 95:693-700(1997).

"INDUCTION: CHEMOTACITE FACTOR THAT ATTRACTS MONOCYTES, BUT NOT RECTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.

MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE REPERFUSED MYOCARDIUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
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ARTIODACTYLA; SUIFORMES; SUINA; SUIDAE; SUS
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MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                           CANIS FAMILIARIS (DOG).
EUKAXYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
CARNIVORA; FISSIPEDIA; CANIDAE; CANIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 84; DB 1; Length 101;
Pred. No. 6.50e-06;
3; Mismatches 0; Indels
                                                                               01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
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01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; U29653; G1144186; -.
PROSITE; PSO0472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P13500; 1DON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-JUGULAR VEIN ENDOTHELIAL; MEDLINE; 97176620.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         101 AA; 11121 MW;
                                                       34, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                84.0%;
75.0%;
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                                                                                                                                                                                                       CHEMOATTRACTANT PROTEIN-1).
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                                                               01-OCT-1996 (REL.
                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                       SCYA2 OR MCP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LT 6
MCP1_PIG
P42831;
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DISULFID SEQUENCE Query Match

Matches

RESULT

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MOD_RES SIGNAL

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Gaps

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0; Indels Length 99;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SERAIN=C57BL/6J; TISSUE=LUNG; STRAIN=C57BL/6J; TISSUE=LUNG; MEDLLINE; 96158746. GONZALO J.-A. JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J., JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPF M.,
                                                                                                                                                                                                        SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LYMPHOCYTES, MACKOPHAGES OR NEUTROPHILS.
-1- SUBCELLULAR LOCATION: EXTRACELLULAR.
-1- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.
EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVEOLAR EPITHELIAL
CELLS), INTESTINE, HEART, SPLEEN, KIDNEY.
-1- FINDOCTION: BY INTERFERON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).
-1- FIN: O-GLYCOSTLATED (PROBABLE).
-1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ROTHENBERG M.E., LUSTER A.D., LEDER P.;
"Murine eotaxin: an eosinophil chemoattractant inducible in endothelial cells and in interleukin 4-induced tumor suppression.";
PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Mouse ectaxin expression parallels eosinophil accumulation during
lung allergic inflammation but it is not restricted to a Th2-type
                                                                                                                                                                                                                                                                                                                                                                                    .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUKARYOTA, METAZOA, CHORDATA, VERTEBRATA; MAMMALIA, EUTHERIA, RODENTIA; SCIUROGNATHI, MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                         BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 2.
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                DB 1; Length 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
15-UUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                               Pred. No. 3.08e-05;
                                                                                                                                                                                                                                                                                    BY SIMILARITY.
BY SIMILARITY.
9BA2CD26 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      97 AA.
                                                                                                                                                                                                                                                                                                                                                                               5; Mismatches
                                                                                                                                                            SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                      SIMILARITY)
                                                                                                                                                                                                                                                                                                                                              Score 81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-FEB-1996 (REL. 33, CREATED)
                                                                                                                                                                                                                                                                                                                 10900 MW;
                                                                                                                                                                                                                                                                                                                                              81.0%;
                                                                                                                                                                                                                                                                                                                                                             larity 58.3%;
Conservative
                                                                                                                          EMBL; S67954; E118856; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                      PFAM; PF00048; i18; 1.
HSSP; P80098; 1NCV.
                                                                                                                                                                                                     CYTOKINE; CHEMOTAXIS;
                                                                                                                                              EMBL; S67956; G544997
PROSITE; PS00472; SMA
                                                                                                                                                                                                                                                                                                                                                                                                       73 DVCADPKQKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                         ::|||||::||:
1 EICADPKERWVR 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MUS MUSCULUS (MOUSE)
                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                                                                                                                                                                                                                              99 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE; 96004658.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE=LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EOTA_MOUSE
P48298;
                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                   MOD_RES
                                                                                                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation. The European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

--- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT FRATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).

---- SUBCELLULAR LOCATION: EXTRACELLULAR.

---- FTM: O-GLYCOSYLATED (PROBABLE).

---- FTM: O-GLYCOSYLATED (PROBABLE).
                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
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                                                                                                                                                                                                                                                                                                                                                                                         80; Ub -,
No. 5.16e-05;
---hes 1; Indels
                                                                                                                                                                                                                                                 EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C., FLANAGAN B.F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBMITTED (DEC-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ECTA_RAT STANDARD; PRT; 97 AA. 199745; 008780; 5. CREATED) 15-JUL-1998 (REL. 36, CREATED) 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE) ECTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN). RATTUS NORVEGICUS (RAT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                      BY SIMILARITY.
BY SIMILARITY.
F85A96BC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                           2; Mismatches
                                                                                                                                                                                                     SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                       POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; Y08358; E274141; -.

EMBL; U96637; G2098785; -.

PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.

PFNA; PP0048; 118; 1.

HSSP; P80098; 1NCV.
                                                                                                                                                                                                                                                                                                                                                                                           Score 80;
                                                                                                                                                                                                                                                                                                        EOTAXIN.
                                                                                                                                                                                                                                                                                                                                                                                                         Pred.
                                                                                                                                                                                                                                                                                                                   32 57
33 73
97 AA; 10893 MW;
                                                                                                                                                EMBL; U26426; G995911; -. EMBL; U40672; G1113937; -.
                                                                                                                                                                                                                                                                                                                                                                                        80.08;
                                                                                                                                                                                                                                                                                                                                                                                                        larity 75.0%;
Conservative
                                                                                                                                                                              MGD; MGI:103576; SCYA11.
PROSITE; PS00472; SMALL.
PFAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                      71 EICADPKKKWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P80098; 1NCV
                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WILLIAMS
                                                                                                                                                                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Human eotaxin is a specific chemoattractant for eosinophil cells and provides a new mechanism to explain tissue eosinophilia.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BARTELS J., SCHLOTER C., RICHTER E., NOSO N., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.;
CHRISTOPHERS E., SCHROEDER J.M.;
"Human dermal fibroblasts express eotaxin: molecular cloning, mRNA expression, and identification of eotaxin sequence variants.";
BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Cloning of the human eosinophil chemoattractant, eotaxin. Expression, receptor binding, and functional properties suggest a mechanism for the selective recruitment of eosinophils."; J. CLIN. INVEST. 97:604-612(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-PLACENTA;
MEDILED: 97312708.
GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N.,
MORTON C.C., LUSTER A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.

TISSUE-SMALL INTESTINE;

MEDLINE; 96205964.

TISTABRA M., NARAJIMA T., IMAI T., HARADA S., COMBADIERE C.,

KITADRA M., NARAJIMA T., IMAI T., MARADA S., COMBADIERE C.,

TIFFANY H.L., MURPHY P.M., YOSHIE O.;

"Molecular cloning of human eotaxin, an eosinophil-selective CC chemokine, and identification of a specific eosinophil eotaxin receptor, CC chemokine receptor 3.";

J. BIOL. CHEM. 271:7725-7730(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
                                                                                                                                                                                     .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                       HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAB; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OWNBEY T.R., LEDER P.,
                                                                                                                                                         Score 80; Jp. 1,
pred. No. 5.16e-05;
pred. No. 5.16e-15;
                                                                                                                                                      Length 97;
EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
                                                                                                                                                                                                                                                                                                               EDTA_HUMAN STANDARD; PRT; 97 AA. P51671; P50877; Q92490; Q92491; Q1-CCT-1996 (REL. 34, CREATED) C1-CCT-1996 (REL. 34, LAST SEQUENCE UPDATE) 15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE) EQTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                         05B4ED45 CRC32;
                                                                                                                                                      Score 80; DB 1;
                                                 EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
                                    POTENTIAL.
                                                                                          POTENTIAL.
                                                                                                                             10851 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAT. MED. 2:449-456(1996).
                                                                                                                                                                           75.0%;
                                                                                                                                                                                            Conservative
                                       23
97
57
73
                       INFLAMMATORY RESPONSE
                                                                                                                                                                                                                        71 EICADPKKKWVQ 82
                                                                                                                                                                                                                                                    1 EICADPKERWVR 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A. MEDLINE; 96181758.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 96189937
                                                                                                                               97 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MACKAY C.R.;
                                                                                                                 CONFLICT
                                                                   DISULFID
                                                                                                    CARBOHYD
                                                                                                                                                              Query Match
                                                                                                                                                                                  Best Loc
Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                          MEDLINE; 9830469.

REDLINE; 9830469.

CRUMP M.P., RAJARATHNAM K., KIM K.S., CLARK-LEWIS I., SYKES B.D.;

CRUMP M.P., RAJARATHNAM K., KIM K.S., CLARK-LEWIS I., SYKES B.D.;

CRUMP M.P., RAJARATHNAM K., KIM K.S., CLARK-LEWIS I., SYKES B.D.;

solution structure of eotaxin, a chemokine that selectively recruits eosinophils in allergic inflammation.";

elochemistry 37:11670-116798(1998).

ELOCHEMISTRY 37:11670-116798(1998).

FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.

SUBCELLUIAR LOCATION: EXTRACELLUIAR.

SUBCELLUIAR LOCATION: EXTRACELLUIAR.

INDUCTION: BY THE PROPERED.

INDUCTION: BY THE LINTERCRINE BETA FAMILY (SMALL CYTOKINE C.) (CHEWOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
"Genomic organization, complete sequence, and chromosomal location of the gene for human eotaxin (SCYA11), an eosinophil-specific CC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genomic organization, sequence, and transcriptional regulation of
                                                                                                                          , SCHLUETER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL; INFLAMMATORY RESPONSE; POLYMORPHISM; 3D-STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   L -> P (IN CLONE 34).
A -> T (IN CLONE 53).
R -> S (IN CLONE 34).
K -> R (IN CLONE 53).
, 6COF3D98 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 79; DB 1, NO. 8.60e-05;
                                                                                                                                                                           the human eotaxin gene.";
BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. 8.60e-C
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EOTAXIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10732 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL, U34780; G1185440; EMBL, U34780; G1552241; EMBL, Z69291; E221070; EMBL, Z75669; E251275; EMBL, U46572; G2088509; ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     79.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; U46573; G1280141; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Z92709; E329504; -.
                                             chemokine.";
GENOMICS 41:471-476(1997).
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1 EICADPKERWVR 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PFAM; PF00048; 118; 1
PDB; 2EOT; 11-NOV-98.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23
51
79
97 AA;
                                                                                        SECUENCE FROM N.A.
                                                                                                                  MEDLINE; 97445071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LT 11
MCPA_BOVIN
P28291;
                                                                                                        TISSUE-LUNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
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VARIANT
VARIANT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   NEUTROPHILS.
-II- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTORINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                    WEMPE F., EINSPANIER R., SCHEIT K.H.;
"Characterization by cDNA cloning of the mRNA of a new growth factor from bovine seminal plasma: acidic seminal fluid protein.";
BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
01-DEC-1992 (REL. 24, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
                                                                                                                                                             WEMPE F., HENSCHEN A., SCHEIT K.H.; Gene expression and cDNA cloning identified a major basic protein
                                                                               EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOS
                                                                                                                                                                                                                                                                                                                                                                                 WEMPE F., KUHLMANN J.K., SCHEIT K.H.; "Characterization of the bovine monocyte chemoattractant protein-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                         BIOCHEM, BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 1A.
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. 8.60e-05;
4; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 1; Length 99;
                                                                                                                                                                                         constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1)."; DNA CELL BIOL. 10:671-679(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C8F5821D CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SIMILARITY).
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PIR; A39296; A39296.
PIR; JC2336; JC2336.
PROSITE; PSO0472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; il8; 1.
HSSP; P13500; 1DON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 79;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11114 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      arity 66.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; L32659; G624394; -. EMBL; M84602; G163395; -.
                                                    SEMINAL FLUID PROTEIN).
                                                                                                                                        TISSUE~SEMINAL PLASMA;
MEDLINE; 92096117.
                                                                                                                                                                                                                                                          TISSUE=SEMINAL PLASMA;
                                                                    BOS TAURUS (BOVINE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73 ELCADPKQKWVQ 84
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                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                           MEDLINE; 92181448
                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 94338337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 34
35
99 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
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                                                                                                                                                                                                                                                                                                                                                                INDUCTION: BY LIPOPOLYSACCHARIDE (LPS), SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                       SHI M.W., GODDESKI J.J., PAULAUSKIS J.D.;
"Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar macrophages.";
BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING. SIGNAL
                                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN-LONG EVANS; TISSUE-LUNG;
MEDLINE; 95238980.
SHANLEY I.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
"Role of macrophage inflammatory protein-1 alpha (MIP-1 alpha) in
                                      MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
                                                                          EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A -> T (IN REF. 2).
C -> W (IN REF. 2 AND 3).
F48CF89F CRC32;
01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY
BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; PSO0472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; 118; 1. HSSP; P13236; 1HUN.
                                                                                                                                                                                                                                                                                                     IMMUNOL. 154:4793-4802(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 23
24 92 B
34 57
35 73 B
6 6 A
57 57
92 AA; 10335 MW; C
                                                                                                                    SEQUENCE FROM N.A.
STRAIN=CD-1; TISSUE=LUNG;
                                                                  RATTUS NORVEGICUS (RAT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; U22414; G790633; -. EMBL; U06435; G459150; -.
                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 24-57.
                                                                                                                                                                                                                                                                                                                                            STRAIN=WISTAR;
MEDLINE; 96183056.
                                                                                                                                STRAIN-CD-1; TISS MEDLINE; 95298037
                                                    SCYA3 OR MIP1A.
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Gaps

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Score 78; DB 1; Length 92; Pred. No. 1.43e-04; 2; Mismatches 1; Indels

78.08;

Local Similarity 75.0%;

Query Match

Matches

Conservative

71 QICADPKETWVQ 82

a

92 AA.

PRT;

STANDARD;

MI1A_RAT P50229;

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CANIS FAMILIARIS (DOG).
                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN-BEAGLE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
DISULFID
SEQUENCE
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                                                                                                                                                                                                                                                                                                  SEOW H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
"Cloning, sequencing, expression and inflammatory activity in skin of
ovine interleukin-8.";
IMMUNOL. CELL BIOL. 72:398-405(1994).
I-FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
I-FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
I-FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
I-FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
I-FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
I-FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS INVOLVED IN
NEUTROPHILL ACTIVATION: IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                       OVIS ARIES (SHEEP).
EUKARYOTA: METAZOA: CHORDATA: VERTEBRATA; MAMMALIA; EUTHERIA:
ARTIODACTYLA; RUMINANTIA: PECORA: BOVOIDEA: BOVIDAE: CAPRINAE; OVIS.
                                                                                                                                                                                                             LEGASTELOIS I., GREENLAND T., ARNAUD P., MORNEX J.F., CORDIER G.; "Sequencing of the ovine interleukin-8-encoding cDNA using the polymerase chain reaction."; GENE 150:367-369(1994).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HSSF, FLOIS, ALMS, INFLAMMATORY RESPONSE; SIGNAL. SIGNAL 2 BY SIMILARITY. CHAIN 23 101 INTERLEUKIN-8. DISULEID 34 61 BY SIMILARITY. BY SIMILARITY. SEOUENCE 101 AA; 11292 MW; 5A574527 CRG32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 78; DB 1; Le
Pred. No. 1.43e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-FEB-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
INTERLEUKIN-8 PRECURSOR (IL-8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                        01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
INTERLEUKIN-8 PRECURSOR (IL-8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT; 101 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM: PF00048; 118; 1.
HSSP; P10145; 11KL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101 AA; 11292 MW;
                                                                                01-JUN-1994 (REL. 29, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            78.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                   C-X-C) (CHEMOKINE CXC).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S74436; G786591; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; X78306; G463254; -.
                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              75 EVCLDPKEKWVQ 86
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Best Local Similarity
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       1 EICADPKERWVR 12
                                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE; 95121931.
                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LT 14
IL8_CANFA
P41324;
                                                                                              01-JUN-1994
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                           IL8_SHEEP
                                                                                                                                                                                                                                                                                                 MEDLINE;
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-i- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 97230298.

MEDLINE; 97230298.

STRAUBINGER R.K., STRAUBINGER A.F., HARTER L., JACOBSON R.H.,

STRAUBINGER R.K., STRAUBINGER A.F., HARTER L., JACOBSON R.H.,

CHANG Y.-F., SUMMERS B.A., ERB H.N., APPEL M.J.;

"Borrelia burgdorferi migrates into joint capsules and causes an upregulation of interleukin-8 in synovial membranes of dogs

experimentally infected with ticks.";

INFECT. IMMUN. 65:1273-1285(1997).

INFECT. IMMUN. 65:1273-1285(1997).

BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN

NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN-MONGREL; TISSUE-JUGULAR VEIN;
MEDLINE; 95114148.
KUKIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
MENDOZA L.H., DALY T.J., HUGHES B.J., YOUKER K.A., HAWKINS H.K.,
MICHAEL L.H., ROT A. ERMANN M.L.;
"Interleukin-8 gene induction in the myocardium after ischemia and
reperfusion in vivo.";
                                                                                                                                                                                                                                                                                                                                                                                                                                MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
GOITSUKA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA S., YOSHIHARA K.,
ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
"Molecular cloning and expression of canine interleukin 8 cDNA.";
                                                                                                             SEQUENCE FROM N.A.
MEDLINE: 94010328.
MEDLINE: 94010328.
ICLINEAMA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.;
"Cloning of a canine gene homologous to the human interleukin-8-encoding gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ó
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
CARNIVORA; FISSIPEDIA; CANIDAE; CANIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 78; DB 1; Length 101;
Pred. No. 1.43e-04;
3; Mismatches 1; Indels
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SIGNAL 23 101 INTERLEUKIN-8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BY SIMILARITY BY SIMILARITY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESPONSE TO AN INFLAMMATORY STIMULUS
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Best Local Similarity 66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C-X-C) (CHEMOKINE CXC)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOKINE 6:455-461(1994).
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                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=LYMPH NODE;
                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 95127913
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PIR; A44253; A44253. PIR; A39819; A39819.

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                                                                                                                                                                                                                                  01-507 (REL. 19, CREATED)
01-507 (REL. 23, LAST SEQUENCE UPDATE)
01-007-1996 (REL. 34, LAST ANNOTATION UPDATE)
INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  porcine alveelar macrophages,"

J. BIOL. CHEM. 266:8455-8463(1991).

-!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
RESPONSE TO AN INTEAMMATORY STIMULUS.
-!- SUBUNIT: HOMODIMER.
-!- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
-!- INDUCTION: BY LIPOPOLYSACCHARIDE.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE, 93041741.
GOODMAN R.B., FOSTER D.C., MATHEWES S.L., OSBORN S.G., KUIJPER J.L.,
FORSTROM J.W., MARTIN T.R.;
"Molecular cloning of porcine alveolar macrophage-derived neutrophil
chemotactic factors I and II; identification of porcine IL-8 and
another intercrine-alpha protein.";
BIOCHEMISTRY 31:10483-10490(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI B.Y., MARTIN T.R., Identification of two neutrophil chemotactic peptides produced by
                                                                                                                                                                                                                                                                                                                                                                                                                         SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; SUIFORMES; SUINA; SUIDAE; SUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LIN G., PERRSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J., WIRSTSS D., MURTAUGH M.P., "Regulation of interleukin.9 expression in porcine alveolar macrophages by bacterial lipopolysaccharide."; J. BIOL. CHEM. 269:77-85(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SANJANWALA M.;
SUBMITIED (JUL-1991) TO EMBL/GENBANK/DDBJ DATA BANKS.
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| EICADPKERWVR 12
75 EVCLDPKEKWVQ 86
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CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
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Search completed: Fri Feb 4 17:51:17 2000 Job time : 7 secs.

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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Fri Feb 4 17:50:29 2000; MasPar time 3.74 Seconds 128.410 Million cell updates/sec Run on:

>US-09-150-813-67 (1-12) from US09150813.pep 100 1 EICADPKERWVR 12

Tabular output not generated.

Description: Perfect Score: Sequence:

PAM 150 Gap 15 Scoring table:

122810 seqs, 40068593 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

pir60 1:pir1 2:pir2 3:pir3 4:pir4 Database:

Mean 25.732; Variance 40.739; scale 0.632 Statistics:

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Pred. No.		1.72e-07	1.20e-04	1.20e-04	1.89e-04	1.13e-03	1.13e-03	1.76e-03	1.760-03	1.70e-03	I./66-U3	1.76e-U3	1.76e-03	1.76e-03	2.74e-03		6.56e-03	6 56e-03	1 010-02	1.010	1.01e-02	2.38e-02	3.65e-02	50	5.56e-02	
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ALIGNMENTS

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жин и Сеп — 1777	RESULT 1 ENTRY TITLE ORGANISM DATE ACCESSIONS REFERENCE	rs - r - r - r - r - r - r - r - r - r -	GENETICS #gene CLASSIFICATION FEATURE 1-23 24-99 SUMMARY QUETY MATCH BEST LOCAL S MATCHES 1	73 1 SULT TRY TLE GANISM

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Bartels, J.; Schlueter, C.; Richter, E.; Noso, N.; Kulke, R.;
                                                                               Christophers, E.; Schroeder, J.M.
Blochem. Blophys. Res. Commun. (1996) 225:1045-1051
Human dermal fibroblasts express ectaxin: Molecular cloning,
mRNA expression, and identification of ectaxin sequence
                                                                                                                                                                                                                                                                    ##cross.reference EMBL.275668; NID:q1531982; PID:e251275; PID:g1531983

**experimental_source dermal fibroblast
COMMENT This protein has eosinophil specific chemotatic activity.

CLASSIFICATION #superfamily macrophage inflammatory protein

fibroblast
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Mol. Cell. Biol. (1989) 9:4687-4695
The human homolog of the JE gene encodes a monocyte secretory
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FEBS Lett. (1989) 244:487-493
Human monocyte chemoattractant protein-1 (MCP-1). Full-length
CDNA cloning, expression in mitogen-stimulated blood
mononuclear leukocytes, and sequence similarity to mouse
competence gene JE.
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#journal Blochem. Blochhys. Res. Commun. (1990) 169:346-351
#title Structure of human monocyte chemotactic protein gene and its
regulation by TPA.
#COSS-references MUID:90290466
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Int. J. Cancer (1990) 45:795-797
A chemoattractant expressed in human sarcoma cells
(tumor-derived chemotactic factor, TDCF) is identical to
monocyte chemoattractant protein-1/monocyte chemotactic and
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Biochem. Biophys. Res. Commun. (1990) 167:904-909
Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel
N-terminally processed form.
                                                                                                                                                                                                                                                                                                                                                                                                                            Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #authors Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill,
#journal J.F.; Kolattukudy, P.E.
#title The expression of monocyte chemotactic protein (MCP-1) in
#cross_references Mulb:94150478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fobinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.; Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E. Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854 complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune
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                                                                                                                                                                                           #authors Yoshimura, T.; Leonard, E.J.
#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title
#tuman monocyte chemoattractant protein-1 (MCP-1).
#ccession I51841
                                                                                                                                                                                                                                                                                                     ##status preliminary; translated from GB/EMBL/DDBJ##molecule_type mRNA ##residues 1-99 ##label YO2 ##cross-references GB:S71513; NID:9240867; PID:9240868
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##residues 1-99 ##label FUR
##cross-references GB:M24545; NID:9187434; PID:9307163
                                                                                                            ##Cross-references GB:X14768; NID:934513; PID:934514
##experimental_source glioma cell line U-105MG
IS1841
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##residues 'X',25-99 ##label ROB
                                                                                             1-99 ##label YOS
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#cross-references MUID:89153605
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#accession A32300
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#cross-references MUID:89184525
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#cross-references MUID:90211336
#accession A34561
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##molecule_type mRNA

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**modified_site pyrrolidone carboxylic acid (Gln) (in mature form) **status experimental^\'
**binding_site carbohydrate (Asn) (covalent) **status
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#formal_name Sus scrofa domestica #common_name domestic pig
30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
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#product monocyte chemoattractant protein-1 #status
predicted #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status
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Biochem. Blophys. Res. Commun. (1994) 199:962-968
Porcine luteal cells express monocyte chemoattractant
protein-1 (MCP-1): Analysis by polymerase chain reaction
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#product monocyte chemoattractant protein 1 #status
experimental #label MAT\
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                                                  Ye, Q.N.; Su, G.F.; Yuan, Y.; Huang, C.F. Chinese J. Microbiol. Immunol. (1994) 14:29-32 The PCR, cloning and sequencing of human monocyte chemoattractant protein-1 (MCP-1) gene.
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                                                                                                                                                                                                                  ##cross-references GDB:125279; OMIM:158105
#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflammatory protein
            ##cross-references GB:S69738; NID:9545464; PID:9545465
                                                                                                                                                                      24-28,'Q',30-99 ##label YEQ
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1-99 ##label LIY
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monocyte chemoattractant protein-1 - bovine
#formal_name Bos primigenius indicus #common_name zebu cattle
20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
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#journal DNA Cell Biol. (1991) 10:671-679
#title Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1).
#cross-references MJDD:92096117
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predicted #label MATY
#binding_site carbohydrate (Asn) (covalent) #status
predicted
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                                                                                                                                                                                                                                                                                                                                                              Wempe, F.; Kuhlmann, J.K.; Scheit, K.H.
Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
Characterization of the bovine monocyte chemoattractant
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                                           0; Indels
Score 83; DB 2; Length 99; Pred. No. 1.89e-04;
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#residues 1-99 ##label WEM
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Similarity 66.7%;
8; Conservative
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      Query Match
Best Local Similarity 66.7%;
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                                                                                             73 EICAEPKOKWVO 84
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                                                     Gaps
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macrophage inflammatory protein-lalpha - rat
#formal_name Rattus norvegicus #common_name Norway rat
29-May-1998 #sequence_revision 29-May-1998 #text_change
02-Jul-1998
                                                                                                                                                                                                                                                                                                                  Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
Biochem. Biophys. Res. Commun. (1995) 211:289-295
Molecular cloning and posttranscriptional regulation of
macrophage inflammatory protein-1 alpha in alveolar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
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19-May-1994 #sequence_revision 19-May-1994 #text_change
12-Apr-1995
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FICATION #superfamily macrophage inflammatory protein
flength 92 #molecular-weight 10335 #checksum 3184
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*length 95 #molecular-weight 10611 #checksum 3157
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    preliminary; translated from GB/EMBL/DDBJ
   Score 79; DB 2; Length 99;
Pred. No. 1.13e-03;
4; Mismatches 0; Indels
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Pred. No. 1.76e-03;
3; Mismatches 1; Indels
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2; Mismatches 1;
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1-92 ##label RES
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 Query Match 79.0%;
Best Local Similarity 66.7%;
                                         Conservative
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Matches 8; Conservative
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#authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G. Immunol. Cell Biol. (1994) 72:398-405
#title Cloning, sequencing, expression and inflammatory activity in skin of owlne interleukin-8.
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#formal_name Sus scrofa domestica #common_name domestic pig
30 Apr-1993 #sequence_revision 18-Nov-1994 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Legastelois, I.; Greenland, T.; Arnaud, P.; Mornex, J.F.;
Cordier, G.
submitted to the EMBL Data Library, March 1994
Nucleotide sequence of ovine interleukin 8 cDNA using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.;
             interleukin-8 - sheep
#formal_name Ovis sp. #common_name sheep
21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
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06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
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#length 101 #molecular-weight 11292 #checksum 294
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FICATION #superfamily beta-thromboglobulin
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Pred. No. 1.76e-03;
3; Mismatches 1; Indels
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Pred. No. 1.76e-03;
3; Mismatches 1; Indels
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##cross_references GB:S74436; NID:9786590; PID:9786591
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Best Local Similarity 66.7%;
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1 EICADPKERWVR 12
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    Immunol. (1991) 146:3483-3488
    Neutrophil attractant/activation protein-1 and monocyte
chemoattractant protein-1 in rabbit: cDNA cloning and their

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#journal Biochemistry (1992) 31:10483-10490
#title Molecular cloning of porchine alveolar macrophage-derived neutrophil chemotactic factors I and II; identification of porchine IL-8 and another intercrine-alpha protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         interleukin-8 precursor - pig
#formal_name Sus scrofa domestica #common_name domestic pig
02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lin, G.; Pearson, A.E.; Scamurra, R.W.; Zhou, Y.; Baarsch, M.J.; Weiss, D.J.; Murtaugh, M.P.
J. Biol. Chem. (1994) 269:77-85
Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.
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monocyte chemoattractant protein-1 - rabbit
#formal_name Oryctolagus cuniculus #common_name domestic
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                                                                                                                                                                                              sequence extracted from NCBI backbone (NCBIN:117415,
NCBIP:117416)
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CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 103 #molecular-weight 11633 #checksum 8835
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#length 103 #molecular-weight 11677 #checksum 8904
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Pred. No. 1.76e-03;
3; Mismatches 1
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3; Mismatches 1;
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Pred. No.
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##molecule_type mRNA; protein
##residues 1-103 ##label GOO
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Matches 8; Conservative
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Local Similarity 66.7%;
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##status

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Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Liauzun, P.; Magazin, M.; Miloux, B.; Minty, C.; Ramond, P.; Vita, N.; Lupker, J.; Shire, D.; Ferrara, P.; Caput, D. Submitted to the EMBL Data Library, March 1993
Molecular cloning of MCP-3: a human monocyte-derived monocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Opdenakker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.; Speleman, F.; Laureys, G.; Van Damme, J. Genomics (1994) 21:403-408
The human MCP-3 gene (SCYR7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Opdenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     #journal Biochem. Biophys. Res. Commun. (1993) 191:535-542
#title Human monocyte chemotactic protein-3 (MCP-3): Molecular cloning of the cDNA and comparison with other chemokines. #cross-references MID:93213290
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#product monocyte chemotactic protein 3 #status
predicted #label MAT\
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predicted
#length 109 #molecular-weight 12356 #checksum 1535
                                                                                                                                                                                                                                                                                                                                                                                                                                                monocyte chemotactic protein 3 precursor - human monocyte chemoattractant protein MCP-3 #formal_name Homo sapiens #common_name man 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This protein induces proteinase secretion and chemotaxis by
                                                                                                  #checksum 4498
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##molecule_type mRNA
##residues
##cross-references GB:M57440, NID:9165469; PID:9165470
##cross-references GB:M57440, NID:916469; PID:9165470
CLASSIFICATION #Superfamily macrophage inflammatory protein
#Iength 125 #molecular-weight 13776 #checks
                                                                                                                                                    Length 125;
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                                                                                                                                                                                   Pred. No. 1.76e-03;
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                                                                                                                                                             Score 78;
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                                                                                                                                                             Query Match 78.0%;
Best Local Similarity 72.7%;
                                                                                                                                                                                                               8; Conservative
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monocyte chemoattractant protein-2 precursor - pig
#formal_name Sus scrofa domestica #common_name domestic pig
24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
                                                                                                                                                                                                                                                                                                                                     Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.; Scheit, K.H.
Scheit, K.H.
Biochem. Biophys. Res. Commun. (1994) 205:148-153
Porcine luteal cells express moncoyte chemoattractat

Protein-2 (MCP-2): Analysis by cDNA cloning and northern
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      Score 77; DB 2; Length 109; Pred. No. 2.74e-03; 3; Mismatches 1; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ##residues 1-99 ##label HOS
##experimental source corpus luteum
CLASSIFICATION #superfamily macrophage inflammatory protein
FEATORE
                                                                                                                                                                                                                                                                                                                                                                                                                                           analysis.
#cross-references MUID:95091716
#accession JC2417
Query Match
Best Local Similarity 66.7%;
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ##molecule_type mRNA
                                                                                                 83 EICADPTQKWVQ 94
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Search completed: Fri Feb 4 17:50:54 2000 Job time: 25 secs.

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|:|||| ::||: | EICADPKERWVR 12 73 EVCADPQQKWVQ 84

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0; Gaps

protein - protein database search, using Smith-Waterman algorithm

Fri Feb 4 17:49:54 2000; MasPar time 3.50 Seconds 72.823 Million cell updates/sec Run on:

rabular output not generated.

>US-09-150-813-67 (1-12) from US09150813.pep 1 EICADPKERWVR 12 PAM 150 Gap 15 Description: Perfect Score: Scoring table: Sequence:

170751 seqs, 21266608 residues Searched:

Post-processing:

a-geneseg35
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7 8:part8 9:part9 10:part10 11:part11 12:part13 13:part13 14:part14 15:part15 16:part16 17:part17 18:part18 9:part9 20:part20 21:part20 22:part22 23:part23 24:part24 25:part25 26:part26 27:part27 28:part28 29:part29 30:part30 31:part31 32:part32 33:part33 34:part34 35:part35 36:part36 37:part37 38:part38 39:part39 Minimum Match 0% Listing first 45 summaries Database:

Variance 70.039; scale 0.273 Mean 19.095; Statistics:

SUMMARIES

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Pred. No		. 55e-02	.53e-02	.53e-02	600-00	000	. oue - 02	.90e-01	000-01	10000	.90e-01	.90e-01	000	. 90e-01	.90e-01	1.90e-01	1 900-01	10000	1.90e-UI	1 906-01	10.00		
	<u> </u>	٠	٦.	-	Н	o	1	ייע	-		- I	٦,			٠.			_	_	•				
	Description		Chemoattractant MCF-2	Human beta-chemokine	Human MC proprotein.	On odo odregotal or manni	Murine monocyce cuemo	Mouse monocyte chemot	Drol3+ chemokine beta	4000	Chemokine MCF-4 proce	Bac 3 chemokine beta	Dea 2 chemokine hetal	Bac 2 Circinovariae 2000	Droll/2 chemokine per	Bac 1 chemokine beta1	Stem cell mobilising	otton organizate in the	Human chemokine pera	Human monocyte chemoa	The shound of the contraction	MOIIOCY LE CITCHIOCACE	Human chemokine pera-	
	ID		R70804	W26655	114 20 2 2	7 / O 7 5 M	W56088	W57322	779CCM	2000	W56690	W22673	010000	7/077M	W22674	W22671	W17665	000	W22670	W56087		WSOIST	R93087	
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		13		ž	ge chemoat	Monocyte chemotactic	Sense MCP-1.	MCF.	(3-Ala) MCP-1.	Monocyte chemotactic	_	MCP-	numan monocy	Peptide from human gl	Mature MCP-1.	chem	Human monocyte chemo-	MCF.	Chemoattractant prote	Human monocyte chemoa	Human MCF precursor.	f bovine P		Pancreas expressed ch	Human eotaxin.		Segmence of P6 precur	0 +1200000	
ın	go.	•	9	R87678	W40175	W09374	R53398	R28660	R87677	R87680	R87675	R87676	W11131	P90292	R86859	W40174		9	R70800	R73914	R06398	R26580	W44721	W00667	0000 LM	0	יית עמ	1	R73915
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ALIGNMENTS

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Gaps
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                                                                                                                                                                                                                                                            Screening for cods. with anti-heparanase activity - by detecting inhibition of heparin or heparan sulphate degradation, potentially useful for treating arthritis, restenosis, cancer. Claim 13; Page 53; 60pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                         Chemoattractant; MCP-2; heparanase; heparin; heparan sulfate; arthritis; restenosis; cancer; wound healing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match

98.0%; Score 98; DB 13; Length 72;
Best Local Similarity 91.7%; Pred. No. 1.53e-02;
Matches 11; Conservative 1; Mismatches 0; Indels
R70804 standard; Protein; 72 AA.
                                                                                                                                                                                                                                 Hoogwerf AJ, Ledbetter SR; WPI; 95-082239/11.
                      R70804;
29-AUG-1995 (first entry)
Chemoattractant MCP-2.
                                                                                                                                                            26-JUL-1994; U08207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   46 evcadpkerwyr 57
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                                                                                                            Homo sapiens.
                                                                                                                                WO9504158-A.
09-FEB-1995.
         Dp
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W26655 standard; Protein; 109 AA. W26655; RESULT ŏ

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Treatment of viral infection, e.g. HIV, and in wound healing claim it page 12-13; 21pp; English.

This protein comprises human beta-chemokine H1305, also known as claim it page 12-13; 21pp; English.

This protein comprises human beta-chemokine H1305, also known as the protein comprises human beta-chemokine H1305, also known as 191023) isolated from a claimed cDNA clone (see CDNA library. Also claimed are: (1) a host cell, preferably to an expression control sequence; (2) a recombinantly produced Specifically reacts with the H1306 polynocleotide operably linked specifically reacts with the H1305 protein. The H1305 protein and (3) a composition comprising an antibody which may be used in a composition for the treatment of a mammalian subject (claimed). It is thought to have chemokine activities and calls: It may be useful for inhibiting viral replication of blood including replication of H1V, and may also be used for treatment of specifically react with H1305. Such antibodies which therapy of certain tumours as they are capable of blocking the form the patient.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New human monocyte chemotactic proprotein - has homology to CC chemokine(s) useful for identifying agent for treating auto-immune diseases or allergic responses.

Claim 1: Pages 38-39: 53pp: English.

The is a human monocyte chemotactic proprotein sequence. Its cDNA was first identified in Incyte clone 95517 from a breast cDNA library. Antisense nucleotides can be used to control human MCPP expression especially where it may lead to inappropriate monocyte or macrophage activity causing damage associated with allergic responses to organs such as the lungs. Antisense nucleotides and MCPP cDNA may be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human MC proprotein.

Human monocyte chemotactic proprotein; MCCP; Incyte clone; allergy; macrophage; diagnostic assay; body fluid; lung; biopsy; autoimmune disease, AIDS; asthma; rheumatoid arthritis; NIDDM; breast cancer; bladder.
16-FEB-1998 (first entry)
Human beta-chemokine H1305 (MCP-2).
H1305, MCP-2; chemokine; human; chemoattractant; chemotaxis;
Virus infection; HIV; therapy; wound healing; tumour; antibody.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98.0%; Score 98; DB 26; Length 109; 91.7%; Pred. No. 1.53e-02; vative 1; Mismatches 0; Indels
                                                                                                                                                                                              Lavallie ER, McCoy JM, Racie LA;
WPI; 97-372866/34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-JAN-1998.
15-JUL-1997; U12349,
15-JUL-1996; US-683655.
(INOY-) INCXTE PHARM INC.
Au-Young J, Coleman R, Hillman JL;
WPI; 98-110529/10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W42072 standard; Protein; 109 AA.
                                                                                                                                                         12-JAN-1996; US-586395.
(GEMY) GENETICS INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              larity 91.7%;
Conservative
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Best Local Similarity
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WO9802459-A1.
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The present sequence represents murine monocyte chemoattractant protein 5 (MCP-5). The MCP-4 and MCP-5 have activity in stimulating chemotactic activity. The proteins can be used for treating cancers, e.g. a sarcoma, a tumour within the lung or gastrointestinal tract, or can be used for triating a melanoma, a fifectious disease such as AIDS or malaria. Antagonists to the proteins disease, cystic fibrosis, sinusitis, rhinitis, atherosclerosis, sinusitis, rhinitis, atherosclerosis, arthritis, aultiple sclerosis, inflammatory bowel disease, parabitic infections may also be treated with a molecule that inhibits
in diagnostic assays of body fluids or biopsied tissues to detect expression levels of MCPP. MCPP cDNA may also be useful for treatment of disorders such as asthma, rheumatoid arthritis, NIDDM or cancer of the breast or bladder. Human MCPP protein can be used to MCPP in allergic responses or inhibitors to modulate the activity of Sequence 109 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-AUG-1998 (first entry)
Murine monocyte chemoattractant protein 5.
Murine; mouse; monocyte chemoattractant protein; MCP-4; MCP-5; chemokine; immune response; cancer; AIDS; malaria; parasitic infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mouse monocyte chemotactic protein 5. Mouse; murine; monocyte chemotactic protein 5; MCP-5; mMCP-5; diagnosis; immune system disorder; infection; inflammation; allergy; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Monocyte chemoattractant proteins, MCP-4 and MCP-3 - used to develop products for treating e.g. cancers, infections, asthma, cystic fibrosis, rhinitis, atherosclerosis or inflammatory bowel disease claim 25; Page 54; 106pp; English.
                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
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                                                                                                                                                                                                                                                                                 Length 109;
                                                                                                                                                                                                                                                                 Score 98; DB 29; Length 109.
Pred. No. 1.53e-02;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 104;
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30-SEP-1997; U17900.
30-SEP-1997; US-027128.
(GEHO ) GEN HOSPITAL CORP.
Garcia-Zepeda E, Luster AD, Sarafi M;
WPI; 98-240080/21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       W56088 standard; Protein; 104 AA.
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                                                                                                                                                                                                                                                                                        3est_Local Similarity 91.7%;
                                                                                                                                                                                                                                                                       98.08;
                                                                                                                                                                                                                                                                                                                          11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 83.3%;
hes 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MCP-4 or MCP-5 expression.
Sequence 104 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               90.08;
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08-NOV-1996; US-744419.
                                                                                                                                                                                                                                                                                                                                                                                         83 evcadpkerwvr 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 EICADPKERWVR 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus spretus.
WO9814573-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; V28592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9812324-A1.
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                                                                                                                                                                                                                                                                 Query Match
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ID W5
AC W5
DT 11
DE M0
EW M0
EW M0
EW CA IM
EW CA
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RESULT
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g
                                                                                        N-PSDB: V30/89, V30/90.

N-PSDB: V30/89, V30/90.

Monocyte chemotactic protein-5 - used to develop products for treating e.g. immune system disorders, infections, inflammation, treating e.g. immune system disorders, infections, inflammation, and in 18 persent sequence represents monocyte chemotactic protein 5 (MCP-5).

The present sequence represents monocyte chemotactic protein 5 (MCP-5).

The MCP-5 protein stimulates chemotaxis of eosinophils, monocytes and represent invertion and so is likely to be involved with lymphocytes, but not neutrophils, and so is likely to be involved with cosinophil. monocyte- and/or lymphocyte-mediated inflammations.

Products of the present invertion can be used for tenating e.g. products of the present invertion can be used for tenating an unwanted inflammatory so or for promoting wound healing. The products can also be used for or for promoting wound healing. The products can also be used for inflammatory bowel disease, glomerular inflammation, lupus membranous nephropathy, glomerulo-sclerosis, chronic hepatic can also disease, andle trespiratory distress syndrome, sarcoidosis, pleural effusions which occur secondary to various diseases, respiratory allergies, asthmin, atherosclerosis, cardiovascular disease, arthritis, and the products can also be used for detection, diagnosis and drug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                prolypeptide encoding chemokine beta 4 and monocyte chemotactic
prolypeptide encoding chemokine beta 4 and monocyte chemotactic
protein 4 - useful to treat tumours, autoimmune disease, infection,
asthma and fibrosis
sxample 11; fig 5; 83pp; English.
The present sequence is human chemokine betal0 (Ck betal0) or
monocyte chemotactic protein 4 (MCP-4) Dro13+ variant, which can
concept to treat patients deficient in Ck betal0, while a Ck betal0
concept to treat patients deficient in Ck betal0, while a Ck betal0
conportunistic infections, autoimmune diseases, asthma, fibrotic
diseases, psoriasis and neurodegenerative diseases. It also
promotes wound healing, regulates hematopoissis and generates
promotes wound healing, regulates hematopoissis and generates
continuodies. Labelled Ck betal0 can be used to identify its cognate
receptor, while cells expressing the receptor can be used to
compounds for (ant)agonist activity. The antagonist can be used to
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0
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Pred. No. 9.60e-02;
2; Mismatches 0; Indels 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Droils themokine betail or monocyte chemotactic protein 4 variant. Human; chemokine betail or monocyte chemotatic antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4; leukaemia; MCP-4; Droil3+ variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH, Parmelee D, White J; WPI: 97-435153/40.
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W22675 standard; Protein; 71 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HUMA-) HUMAN GENOME SCI INC.
                                              Gonzalo J, Gutierrez-Ramos J;
WPI; 98-217264/19.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-MAR-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10; Conservative
                           (BLOO-) CENT BLOOD RES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-FEB-1996; U02598.
23-FEB-1996; WO-U02598.
                                                                                    N-PSDB; V30789, V30790.
            18-SEP-1996; US-026882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     72 eicadpkekwvk 83
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  screening.
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treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-resinophilic syndrome, ung inflammation and atherosclerosis. Ck betal0 cDNA can be used to isolate genes encoding similar peptides, in gene therapy and for chromosome identification.
                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                              MCP-4; MCP-4 receptor; antagonist; agonist; inflammatory disease; viral; bacterial; parasite; infection; allergic reaction; asthmatic; atherosclerosis; arthritis; chemokine.
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Pred. No. 1.90e-01;
2; Mismatches 0; Indels
                                                                                                                             Score 87; DB 26; Length 71;
Pred. No. 1.90e-01;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SMIK ) SMITHKLINE BEECHAM PLC.
Bergsma D, Berkhout T, Elshourbagy N, Groot PHE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                be used for detection and diagnosis.
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W22673 standard; Protein; 75 AA.
                                                                                                                                                                                                                                                                                                                                           Chemokine MCP-4 protein sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SMIK ) SMITHKLINE BEECHAM CORP.
                                                                                                                                                                                                                                                                                              W56690 standard; Protein; 75 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               87.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ouery Match 87.0%;
Best Local Similarity 83.3%;
Matches 10; Conservative
                                                                                                                                     87.0%;
                                                                                                                                                     Sest Local Similarity 83.3%;
Atches 10; Conservative
                                                                                                                                                                                                                                                                                                                            23-JUL-1998 (first entry)
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27-AUG-1997; G02313.
28-AUG-1996; GB-017923.
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                                                                                                                                                                                                   45 eicadpkekwvg 56
                                                                                                                                                                                                                                1 EICADPKERWVR 12
                                                                                                           71 AA;
                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
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                                                                                                            Sequence
                                                                                                                                     Query Match
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Example 11; Fig 5: 83pp; English.

Example 11: Fig 5: 83pp; English.

The present sequence is human chemokine betal0 (Ck betal0) or monocyte chemotractic protein 4 (MCP-4) Bac 3 variant, which can be used to treat betalo. While ack betalo.

The present sequence is human chemokine betalo, while ack betalo can be used to treat leukaemia, solid tumours, chronic or betalo can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autroimmune diseases. It also promotes wound healing, regulates hemmatopoies; and generates antibodies. Labelled Ck betalo can be used to identify its cognate compounds for (art)agonist activity. The antiagonist can be used to compounds for (art)agonist activity. The antiagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck betalo CDNA can component
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Gaps
                                                                                                                                                                                                                                                                                                                                                          Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infection, asthma and fibrosis
W22673;
19-MAR-1998 (first entry)
Bac 3 chemokine betal0 or monocyte chemotactic protein 4 variant.
Bac 3 chemokine betal0, or betal0, traatament, antagonist;
solid tumour; infection; autoimmune disease; asthma; antibody;
fibrotic disease; psoriasis; neurodegenerative disease;
wound healing; haematopolesis regulation; gene therapy;
chromosome identification; monocyte chemotactic protein 4;
leukaemia; MCP-4; Bac 3 variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (HUMA-) HUMAN GENOME SCI INC.
Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
Parmelee D, White J;
WPI: 97-435153/40.
Polypeptide encoding chemokine beta 4 and monocyte chemotactic
Protein 4 - useful to treat tumours, autoimmune disease, infection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bac 2 chemokine betal0 or monocyte chemotactic protein 4 variant.
Bac 2 chemokine betal0 or monocyte chemotactic protein 4 variant.
Bac 2 chemokine betal0, Ck betal0; treatment; antagonist;
solid tumour; infection; autoimmune disease; asthma; antibody;
fibrotic disease; psoriasis; neurodegenerative disease;
wound healing; haematopoiesis regulation; gene therapy;
chromosome identification; monocyte chemotactic protein 4;
leukaemia; MCP-4; Bac 2 variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 87; DB 26; Length 75;
Pred. No. 1.90e-01;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                            (HUMA-) HUMAN GENOME SCI INC.
Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       W22672 standard; Protein; 77 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    larity 83.3%;
Conservative
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23-FEB-1996; WO-U02598.
                                                                                                                                                                                                                                                                                                                    Parmelee D, White J; WPI; 97-435153/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-FEB-1996; WO-U02598
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 EICADPKERWVR 12
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                                                                                                                                                                                                   WO9731098-A1.
                                                                                                                                                                                                                          28-AUG-1997
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Example 11; Fig 5; 83pp; English.

Composite chemotactic protein 4 (MCP-4) Bac 2 variant, which can be monocyte chemotactic protein 4 (MCP-4) Bac 2 variant, which can be used to treat patients deficient in Ck betalo, while a Ck betalo.

Comtagonist can be used to reduce excessive levels of Ck betalo. Ck betalo can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases. It also cisseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, regulates haematopoiesis and generates antibodies. Labelled Ck betalo can be used to identify its cognate compounds for carbigaonist activity. The antagonist can be used to screen treat rheumatoid arthritis, autoimmune, chronic inflammatory or bone marrow fallure, silicosis, sarcoidosis, hyper-eosinophilic be used to isolate genes encoding similar peptides, in gene therapy con compounds. The compound content of the compound content in the content fever and syndrome, lung inflammation and atherosclerosis. Ck betalo CbNA can and for chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WHISTORY 4.9.19.9.4.0.

To Protein 4 useful to treat tumours, autoimmune disease, infection, asthma and fibrosis

Example 11: Fig 5: 83pp: English.

The present sequence is human chemokine betal0 (Ck betal0) or monocyte chemotractic protein 4 (MCP-4) Drol1/2 variant, which can monocyte chemotractic protein 4 (MCP-4) Drol1/2 variant, which can be used to treat patients deficient in Ck betal0, while a Ck betal0 cc betal0 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases. It also romotes wound healing, regulates haematopoiesis and generates of compounds for (atl)agonist can be used to identify its cognate compounds for (atl)agonist activity. The antagonist can be used to compounds for (atl)agonist activity. The antagonist can be used to compound failure, silicosis, sarooidosis, hyper-eosinophilic con marrow failure, silicosis, sarooidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck betal0 con and atherosclerosis. Ck betal0 con and for chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Droll/2 chemokine betail or monocyte chemotactic protein 4 variant. Solid tumour; infection; autoimmune disease; asthma; antibody; solid tumour; infection; autoimmune disease; asthma; antibody; wound healing; haematopolosis; neurodegenerative disease; chromosome identification; monocyte chemotactic protein 4; leukaemia; MCP-4; Droll/2 variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 87; DB 26; Length 77;
Pred. No. 1.90e-01;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (HUMA-) HUMAN GENOME SCI INC.
Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
Parmelee D, White J;
WPI: 97-435153/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           W22674 standard; Protein; 79 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-MAR-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23-FEB-1996; U02598.
23-FEB-1996; WO-U02598.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   51 eicadpkekwvg 62
                                                                                                                                                                                                                                                                                                                                                                                               77 AA;
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24-OCT-1995, US-006051.
(SMIK ) SMITHKLINE BEECHAM CORP.
Kreider BL, Li H, Pelus L. Wh
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                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein and fibrosis

Example 11: Fig 5: 83pp; English.

Example 11: Fig 5: 83pp; English.

Corporate chemotactic protein 4 (MCP-4) Bac 1 variant, which can be monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be monocyte chemotactic protein 4 (MCP-4) Bac 1 variant, which can be monocyte chemotactic protein in CK beta10.

Corportunistic and fortreat leukaemia, solid tumours, chronic or cheal or an tegonist can be used to treat leukaemia, solid tumours, chronic or cheal or an encodegenerative diseases. It also promotes wound healing, regulates haematopolesis and generates antibodies. Labelled CK beta10 can be used to identify its cognate antibodies. Labelled CK beta10 can be used to identify its cognate can be used to compounds for (ant)agonist autoimmune, chronic inflammatory or creat rheumatoid arthritis, autoimmune, chronic inflammatory or
                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Stem cell mobilising chemokine CKbeta-10.

Stem cell mobilising chemokine CKbeta-10.

Haematopoietic cell; parasitic infection; colony stimulating factor; haematoregulator; immune response; bacterial infection; transplant; haematoregulator; immunosuppression; regeneration; moond healing; bone marrow; immunosuppression; regeneration; neoplastic disease; viral disease; gene therapy; cytotoxic drug.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoldosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck betalo CDNA can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   be used to isolate genes encoding similar peptides, in gene therapy and for chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                                      Parmelee D, White J; WPI: 97-435153/40. Polypeptide encoding chemokine beta 4 and monocyte chemotactic polypeptide encoding to treat tumours, autoimmune disease, infection, protein 4 - useful to treat tumours,
                               Gaps
                                                                                                                                                                                     19-MAR-1998 (first entry)
Bac 1 chemokine betal0 or monocyte chemotactic protein 4 variant.
Human; chemokine betal0; Ck betal0; treatment; antagonist;
solid tumour; infection; autoimmune disease; sathma; antibody;
                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            87.0%; Score 87; DB 26; Length 82;
larity 83.3%; Pred. No. 1.90e-01;
Conservative 2; Mismatches 0; Indels
                                                                                                                                                                                                                                      fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4;
       Pred. No. 1.90e-01;
                                                                                                                                                                                                                                                                                                                                                                       (HUMA-) HUMAN GENOME SCI INC.
Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W17665 standard; peptide; 82 AA.
                                                                                                                                                                                                                                                                                          leukaemia; MCP-4; Bac 1 variant.
                                                                                                                                                    W22671 standard; Protein; 82 AA. W22671;
                  Best Local Similarity 83.3%;
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                  23-FEB-1996; U02598.
23-FEB-1996; WO-U02598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              56 eicadpkekwvg 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-1997.
23-OCT-1996; U16959.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
                                                                  53 eicadpkekwvg 64
                                                                                              1 EICADPKERWVR 12
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                                                                                                                                                                                                                                                                                                                         WO9731098-A1.
                                                                                                                                                                                                                                                                                                             Homo sapiens
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                                                                                                                                             RESULT
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The present sequence represents a chemokine, Ckbeta-10, which is capable to mobilising stem cells. The chemokine can be used therapeutically to of mobilising stem cells. The chemokine can be used therapeutically to improve stem cell mobilisation, optionally together with a colony stimulating factor or other haematoregulatory agent. It can be used to wherever an increased level of haematopoietic cells is needed, e.g. to necrease the immune response to chronic infection (particularly bacterial or parasito), to promote wound healing, in (transplant) contents with reduced bone marrow function as a result of patients with reduced bone marrow function as a result of immunosuppressive treatment or disease, and to provide more rapid immunosuppressive treatment or disease, and to neophastic or viral diseases. The induced stem cells may be harvested for subsequent return to the patient, optionally after they have been genetically manipulated to deliver a selected gene product (gene therapy). The cells may be consequent for a deliver a selected gene product (gene therapy). The cells may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    healing, regulates haematopoiesis and generates antibodies.
Labelled Ck betalo can be used to identify its cognate receptor,
while cells expressing the receptor can be used to screen compounds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             claim 1. Fig 2: 83pp: English.

Claim 1. Fig 2: 83pp: English.

The present sequence is human chemokine betal0 (Ck betal0) or

monocyte chemotractic protein 4 (MCP.4), which can be used to treat

monocyte deficient in Ck betal0, while a Ck betal0 antagonist can

be used to reduce excessive levels of Ck betal0. Ck betal0 can be

used to treat leukaemia, solid tumours, chronic or opportunistic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also promotes wound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-MAR-1998 (first entry)
Human chemokine betal0 or monocyte chemotactic protein 4.
Human chemokine betal0; ox betal0; treatment; antagonist;
solid tumour; infection; autoimmune disease; astima; antibody;
fibrotic disease; psoriasis; neurodegenerative disease;
wound healing; haematopoiesis regulation; gene therapy;
chromosome identification; monocyte chemotactic protein 4;
leukaemia; MCP-4.
                         WPI: 97-28956/23.
WPI: 97-28956/23.
Ten new chemokine(s) able to mobilise stem cells - used where increased levels of haematopoietic cells are required, e.g. to increase resistance to infection claim 7; Page 11-12; 24pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 87; DB 24; Length 82; Pred. No. 1.90e-01;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Adams M. Alderson R. Applebaum E. Li H, Li Y, Lima SH, Parmelee D. White J; WPI; 97-435153/40.
N-PSDB; T85029.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2; Mismatches
White JR;
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/label= sig_peptide
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/label= mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W22670 standard; Protein; 98 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23-FEB-1996; WO-U02598.
(HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 83.3%;
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    asthma and fibrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             56 eicadpkekwyg 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 EICADPKERWVR 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              82 AA;
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products for treating e.g. cancers, infections, asthma, cystic fibrosis, rhinitis, atherosclerosis or infections, asthma, cystic claim 8; page 53: 106pp; English.

The present sequence represents human monocyte chemoattractant protein (NOF-4). The MCP-4 and MCP-5 have activity in stimulating chemotactic activity. The Proteins can be used for treating cancers, e.g. artivity. The Proteins can be used for treating cancers, e.g. astrooma, a tumour within the lung or gastrointestinal tract, or can be used for treating e.g. and an endoward as infectious disease such as AIDS or malaria. Antagonists to the proteins can be used for treating e.g. astrointestinal tract, or can be used for treating e.g. astrointestinal tract, or can be used for treating e.g. asthma, chronic obstructive pulmonary glomerulonephritis, multiple sclerosis, inflammatory bowel disease, arthritis or adult respiratory distress syndrome. Infections such as MCP-4 or MCP-5 expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
for (ant)agonist activity. The antagonist can be used to treat infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic be used to isolate genes encoding similar peptides, in gene therapy and for chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Monocyte chemoattractant proteins, MCP-4 and MCP-3 - used to develop
                                                                                                                                                                                                                           Gaps
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                                                                                                                                                                                                                                                                                                                                                                                    17-502-1998 (first entry)
Human monocyte chemoattractant protein 4.
Human, monocyte chemoattractant protein; MCP-4; MCP-5; chemokine;
immune response; cancer; AIDS; malaria; parasitic infection.
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0
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Monocyte chemotactic protein 5.
Cohn 3 disease; arthilinflammatory; atherosclerosis;
Cohn 3 disease; arthilis; angiogenesis; tumour; metastasis;
Homo sapiens.
                                                                                                                                                                        Score 87; DB 26; Length 98;
Pred. No. 1.90e-01;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 87; DB 31; Length 98;
Pred. No. 1.90e-01;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-SEP-1997; U17900.
30-SEP-1996; US-027128.
(GEHO ) GEN HOSPITAL CORP.
Garcia-Zepeda E, Luster AD, Sarafi M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                     W56087 standard; Protein; 98 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       W30191 standard; Protein; 98 AA.
                                                                                                                                                                        87.0%;
                                                                                                                                                                                      Local Similarity 83.3%;
                                                                                                                                                                                                         10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             87.08;
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les 10; Conservative
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                                                                                                                                                                                                                                                                    1 EICADPKERWVR 12
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WPI; 98-240080/21.
                                                                                                                                     98 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 98-240080
N-PSDB; V28591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        09-APR-1998
                                                                                                                                                                      Query Match
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                                                                                                                                                                                                         Matches
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This Purple Comprises numen macrophage derived monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine.

Its amino acid sequence was deduced from a cDNA clone (see 19080 and T90803) isolated from a human macrophage cDNA claimed method for producing MCP-5 comprises with MCP-5 polynucleotide. Also claimed is a hybridoma that continue with the mature MCP-5. MCP-5 (or its anologues and produces a monoclonal antibody (MAb) that is specifically reactive with the mature MCP-5. MCP-5 (or its anologues and produces a monoclonal antibody (MAb) that is specifically reactive with the mature MCP-5. MCP-5 (or its anologues and reagents) is used to enhance the immune response in cases of wounds or infections, while its inhibitors (e.g. the MAb) are considered as anti-inflammatories in cases of e.g. arthritis and angiogenesis and tumour growth (or metastasis). The MCP-5 inhibitors can possibly also be used to reduce the damaging effects inhibit replication of HIV. MCP-5 can also be used to identify is ceceptors) are used to modulate MCP-5 peptides (or the analogues or MCP-5 agonists and antagonists.
                                                                                                                                                                                                                         Polynucleotide encoding monocyte chemotactic protein-5 - useful in treatment of e.g. inflammation, atherosclerosis, angiogenesis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 87; DB 28; Length 98;
Pred. No. 1.90e-01;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                            Claim 1; Page 36-37; 47pp; English.
This polypeptide comprises human macrophage-derived
     /label= Sig_peptide
24..98
                                         /label= Mat_protein
                                                          /note= "(Claim 4)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 83.3%;
                                                                              Gray PW;
                                                                                                                                                                                    WPI; 97-489645/45.
                                                                                                                                                  (ICOS-) ICOS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98 AA;
                                                                                                                                                                                                     N-PSDB; T90880.
                                                                          WO9735982-A2.
                                                                                                                                                                    Godiska R,
                       Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
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Search completed: Fri Feb 4 17:50:12 2000 10; Conservative 72 eicadpkekwvg 83 1 EICADPKERWVR 12 g ò

Job time : 18 secs.

.. 0

Gaps

; 0

protein - protein database search, using Smith-Waterman algorithm MPsrch_pp

Fri Feb 4 17:57:30 2000; MasPar time 5.04 Seconds 129.952 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-68 (1-12) from US09150813.pep 97

1 DICADPKKKWVQ 12 Description: Perfect Score: Sednence:

PAM 150 Gap 15 Scoring table:

179066 segs, 54579741 residues Searched:

Minimum Match 0% Listing first 45 summaries Post-processing:

1:sp_archea 2:sp_bacteria 3:sp_fungi 4:sp_human 5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle 9:sp_phage 10:sp_plant 11:sp_rodent 12:sp_unclassified 13:sp_vertebrate 14:sp_virus sptremb19 Database:

Mean 25.541; Variance 34.851; scale 0.733

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Statistics:

SUMMARIES

Pred. No.	3.08e-04 3.08e-04 3.08e-03 3.76e-03 6.15e-03 1.63e-02 1.63e-02 2.64e-02 4.25e-02 6.83e-02 6.83e-02 6.83e-02 1.09e-01 1.09e-01 1.09e-01 1.09e-01 1.09e-01 2.77e-01 2.77e-01	
Pr	CHEMOK CHEMOK PRECUR CHEMOK PRECUR CURSOR CURSOR COUSOR ED CHE DOUS.	
Description	PRECIDENTIAL RANTES PRECURSOR. RANTES PRECURSOR. BETA CHEMOKINE EXODUS- CC CHEMOKINE ABCD-1. CC CHEMOKINE ABCD-1. CC CHEMOKINE ST38 PREC INTERLEUKIN-8 (FRAGMEN MPIE-2. IL-10-INUCIBLE CHEMOK LD78 ALPHA BETA PRECUR LD78 ALPHA BETA PRECUR CC CHEMOKINE PRECURSOR CC CHEMOKINE EXODUS. CC CHEMOKINE PRECURS CODED FOR BY C. ELECAN	
	0355188 043546 043546 043546 0698158 0600585 062812	
•	11111444411111111111111111111111111111	
% Query Match Length DB	395 395 1395 135 135 110 100 93 95 1009 1009 1224 1224	
% Query Match	799.4 799.4 775.3 737.2 737.2 731.1 711.1 701.1 701.1 68.0 68.0 67.0 67.0 67.0 67.0 67.0 67.0 67.0	
Score	777 73 73 73 73 73 73 74 75 66 66 66 66 66 67 66 65 66 65 66 66 66 66 66 66 66 66 66	
Result No.	10000000000000000000000000000000000000	

6.90e-01 6.90e-01 6.90e-01 2.62e+00 2.62e+00 4.06e+00	6.24e+00 6.24e+00 6.24e+00 6.24e+00 6.24e+00 6.24e+00 6.24e+00	5.24e+00 9.56e+00 9.56e+00 9.56e+00 9.56e+00 9.56e+00 1.46e+01	
BETA CHEMOKINE EXODUS- SMALL INDUCIBLE CYTOKI TOLD3.3 PROTEIN. CXC CHEMOKINE PRECURSO CO5D2.8 PROTEIN. ECO O PROTEIN (FRAGMEN 03625P.	WMIP-IB. MHC CLASS I HEAVY CHAI 1-AMINOCYCLOPROPANE-1- RUYY. ACC SYNTHASE (EC 4.4.1 1-AMINOCYCLOPROPANE-1- HYPOTHETICAL 65.2 KD P T26413.4 PROTEIN.	RNA HELICASE. INSERTION ELEMENT ISGI ENVELOPE GLYCOPROTEIN. ENVELOPE GLYCOPROTEIN. ENVELOPE GLYCOPOTEIN. ENVELOPE GLYCOPROTEIN. ENVELOPE GLYCOPROTEIN. ORF UL154.	ENTS ; 395 AA. ED) SECUENCE UPDATE) ANNOTATION UPDATE)
009006 009002 P90956 043927 045136	098157 046767 081404 052417 082719 043747 042610 024662	062780 050686 073288 073292 073291 073290 068499	ALIGNMENTS PRT; CREATED) 5, CREATED) 5, LAST SECU
133 11 133 11 949 5 109 4 188 5 203 14	10 10 10 10 10 10 10 10 10 10 10 10 10 1		PRELIMINARY; (TREMBLREL. 05 (TREMBLREL. 06)
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	RODENTIA;	тн J., Вк J., in		Gaps 0;			RODENTIA;
A. UPDATE) NA UPDATE)	NEGONOTATIN: MUS MUSCULUS (MOUSE). BURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; BUTHERIA; SCIUROGNATHI; MURIDAE; MUS.	SEQUENCE FROM N.A. MEDLINE; 97320499. PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH PAN Y., CLARE L., DUSSAULT B., WOOLF B., ALPERIN A., CULPEPPER GOSSELIN M., MA J., DUSSAULT B., WOOLF B., ALPERIN A., GUTIERREZ.FRAMOS J.C., GERRING D.	RC32;	DB 11; Length 395; 3.08e-04; tches 1; Indels 0;		; 395 AA. ED) SEQUENCE UPDATE) ANNOTATION UPDATE)	FRACTAKINE. MUS MUSCULUS (MOUSE). EUSRARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
PRT; 395 AA. CREATED) LAST SEQUENCE UPDATE) LAST ANNOTATION UPDATE)	A; VERTEBRATA; NAE; MUS.	DOLICH S., DEEL T B., WOOLF B., NG D.;		Score 77; DB 1. Pred. No. 3.08e 1; Mismatches		PRT CREAT LAST LAST	TA; VERTEBRATA INAE; MUS.
PRELIMINARY; (TREMBLREL. 05, (TREMBLREL. 05,	SCYDI. MUS MUSCULUS (MOUSE). BURARYOTA; METAZOA; CHORDATA; VERTE) SCURPOGNATHI: MURIDAE; MURINAE; MUS	FROM N.A. 197320499. CLARE L., DUSSAULT B., WOOLF M.M., MA J., DUSSAULT B., WOOLF SZ-RAMOS J.C., GEARRING D.,	"Neurocaccin"; inflammation."; MATURE 387:611-617(1997). EMBL; AFO10586; G2317698; MGD: MGI:1097153; SCYD1. SEQUENCE 395 AA; 42098 MW;	79.4%; Similarity 81.8%; 9; Conservative	FCADPKEKWVO 83 ICADPKKKWVQ 12	PRELIMINARY; 8 (TREMBLREL. 05, 8 (TREMBLREL. 05, 8 (TREMBLREL. 08,	MUSCULUS (MOUSE). MUS MUSCULUS (MOUSE). EUKARYOTA: METAZOA: CHORDATA: VERTEI SCIUROGNATHI: MURIDAE: MURINAE: MUS
1 35188 35188; 1-JAN-1998 1-JAN-1998 1-NOV-1998	NEGRATION (MOUSE). MUS MUSCULUS (MOUSE). EUKARYOTA: METAZOA: C SCIUROGNATHI: MURIDAE	SEQUENCE FROM N.A. MEDLINE; 97320499. PAN Y., CLARE L., GOSSELIN M., MA J., GUTIERREZ-RAMOS J.	Neurotactin, a inflammetrini."; NATURE 387:611- EMBL, AF010586; MGD; MGI:109715 PFAM; PF00048; SEQUENCE 395	Query Match Best Local Simi Matches 9;	73 FCADPKEKWVC : 2 ICADPKKKWVC	SOL	
RESULT ID O AC O DT O DT O DT O	0000 E	RA RA RA	RT RE DR DR	O E Z	Db Oy	REGINATION	SSS

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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
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MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.;
"Molecular mimicry of human cytokine and cytokine response pathway
[1]
SEQUENCE FROM N.A.
STRIN-BALLAC; TISSUE-BRAIN;
ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
SUGMIK A., BAZAN J.F.;
SUGMITTED (MAR.1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U92565; 2455677; ---
PRAM; PF00048; 118, 1.
SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;
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                                                                                                                         Score 77; DB 11; Length 395;
Pred. No. 3.08e-04;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 73; DB 4; Length 91;
Pred. No. 2.29e-03;
4; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                  JANG J.S., KIM B.E.;
SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AF043341; G2905632; -. EMBL; AF088719; G3719366; -. PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                               LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
VIRUSES; DSDNA VIRUSES, NO RNA STACE; HERPESVIRIDAE;
GAMMAHERPESVIRINAE; RHADINOVIRUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LAST ANNOTATION UPDATE)
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CF404FAD CRC32;
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81-NOV-1998 (TREMBLREL. 06, LAST SEQU
SCYAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       098158; 012569;
01-FEB-1997 (TREMBLREL. 02, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQU
01-NOY-1998 (TREMBLREL. 08, LAST SNNC
                                                                                                                                                                                                                                                PRT;
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Local Similarity 81.8%;
les 9; Conservative
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91 AA; 9990 MW;
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                                                                                                                                                                     73 FCADPKEKWVQ 83
                                                                                                                                                                                   2 ICADPKKKWVQ 12
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| DICADPKKWWQ 12
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SEQUENCE FROM N.A.
MEDLINE; 97121480.
RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
PARKY J.P., PERCZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
"NUCLY Optide sequence of the Kaposi sarcoma-associated herpesvirus
"NUCLY OF THE PERCENTIAN 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BETA CHEMOKINE EXODUS-2.
HOMO SAPIENS (HUMAN).
BUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.,
SUBMITTED (OCT-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D., PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.; SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFO D.,
HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
SUBMITTED (NOV-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
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HEDRICK J.A., ZLOTNIK A.;
"Identification and characterization of a novel beta chemokine containing six conserved cysteines.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE: 97296220, NEIPER J.C., FLECKENSTEIN B.; "Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus human herpesvirus 8: determinants of its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74.2%; Score 72; DB 14; Length 95; 66.7%; Pred. No. 3.76e-03; rative 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. HROMAS M., FIFE K., BROXMEYER H.; SUGMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUN R., LIN S.-F., MILLER G.;
SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U75698; G1718266; -
EMBL; U7565; G1658273; -
EMBL; U93872; G2246546; -
EMBL; U71366; G3551763; -
EMBL; U71366; G3551763; -
EMBL; U71366; G3551763; -
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01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10485 MW; 5283348D CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT; 134 AA.
  SCIENCE 274:1739-1744(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               pathogenicity?";
J. VIROL. 71:4187-4192(1997).
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8; Conservative
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Best Local Similarity
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display, is upregulated in brain inflammation."; J. NEUROIMMUNOL. 0:0-0(1998).
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
                                                                                                                                                                                                                                                                                                                                                                                                                 EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 9835331.

MEDLINE; 9835331.

SCHANIEL C., PARDALI E., SALLUSTO F., SPELETAS M., RUEDL C., SCHANIEL C., PARDALI E., ANDERSSON J., MELCHERS F., ROLINK A.G., SIDERAS P.; ROLINE B. IMPROCYTES and dendritic cells produce a novel "Activated murine B lymphocytes and dendritic cells produce a novel CC chemokine which acts selectively on activated T cells."; J. EXP. MED. 188:451-463(1998).

EMBL: APO52505; G3378116; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                    0; Gaps
                                                                                         SEQUENCE FROM N.A.

NAGIRA M., IMAI T., HIESHIMA K., KUSUDA J., RIDANPAA M., TAKAGI S.,
NISHIMURA M., KAKIZAKI M., NOMIYAMA H., YOSHIE O.;
NISHIMURA M., RAGULED TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL, 108320; G2196920; -.
EMBL, AF001979; G2644925; -.
EMBL, AF001979; G2644925; -.
EMBL, AF001979; A183; 1.
SEQUENCE 134 AA, 14646 MW; FE86A239 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LESSIAUER W.; A novel rat CC chemokine, identified by targeted differential
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UTANS-SCHNEITZ U., LOREZ H., KLINKERT W.E.F., DA SILVA J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Match 71.1%; Score 69; DB 11; Length 92; Local Similarity 72.7%; Pred. No. 1.63e-02; Local Similarity 72.7%; Pred. S. 1.63e-02; Indels les 8; Conservative 1; Mismatches 2; Indels
                                                                                                                                                                                                          Score 71; DB 4; Length 134;
Pred. No. 6.15e-03;
2; Mismatches 2; Indels
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LAST ANNOTATION UPDATE)
                                                    HEDRICK J.A., ZLOTNIK A.;
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                          01-NOV-1998 (TREMBLREL. 08, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10302 MW; BC7219A0 CRC32;
                                                                                                                                                                                                                                                                                                                                       92 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                       PRT;
                   J. IMMUNOL. 159:1589-1593(1997)
                                                                                                                                                                                                                / Match 73.2%;
Local Similarity 66.7%;
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MUS MUSCULUS (MOUSE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             74 DICADPROVWV 84
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                                                                                                                                                                                                                                                                73 ELCADPKELWVQ 84
                                                                                                                                                                                                                                                                                         1 DICADPKKKWVQ 12
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TISSUE=LIVER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92 AA;
                                              SEQUENCE FROM N.A
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088430
088430;
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
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                                                                                                                                                                                                                                                      Gaps
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J. EXP. MED. 0:0-0(0).

EMBL; U85768; G1916252; -.

PFAM, PF0048; 118; 1.

PFAM, PF0048; 118; 1.
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PERISSODACIYLA; EQUIDAE; EQUUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 70.1%; Score 68; DB 4; Length 119; Best Local Similarity 58.3%; Pred. No. 2.64e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 71.1%; Score 69; DB 6; Length 97; Best Local Similarity 50.0%; Pred. No. 1.63e-02; Matches 6; Conservative 3; Mismatches 3; Indels
                                                                                                                                                                                                         Length 97;
                                                                                                                                                                                                                SEQUENCE FROM N.A.
TISSUE-BRONCHOALVEOLAR TISSUE;
FRANCHIUM M.;
SUBMITTED (AFR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
BHBL; AF062377; G3126973; -...
NON TER.
                          SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; APOG3313; G3551819; -.
EMBL; AJ007862; E1312757; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NVY-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (TREMBLREL. 07, LAST SEQUENCE UPDATE)
(TREMBLREL. 07, LAST ANNOTATION UPDATE)
                                                                                                                        POTENTIAL.
CC CHEMOKINE ST38.
053405BD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97 AA; 10742 MW; 00396FBF CRC32;
                                                                                                                                                                                                              71.1%; Score 69; DB 11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                          97 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     000175;
01-JUL-1997 (TREMBLREL. 04, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-AUG-1998 (TREMBLREL. 07, CREATED)
01-AUG-1998 (TREMBLREL. 07, LAST SEQU
01-AUG-1998 (TREMBLREL. 07. LAST ANW
                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                        SIGNAL 1 27
CHAIN 28 97
SEQUENCE 97 AA; 10826 MW;
                                                                                                                                                                                                                         Query Match 71.1%;
Best Local Similarity 70.0%;
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                                                                                                                                                                                                                                                               7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           75 EVCLNPHTKWVQ 86
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2 ICADPKKKWV 11
SEQUENCE FROM N.A.
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Query Match
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057411
057411;
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093238
093238;
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EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ·;
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04745
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01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-NOV-1996 (TREMBLREL. 09, LAST SEQUENCE UPDATE)
107-3NA-1999 (TREMBLREL. 09, LAST ANNOTATION UPDATE)
LD78 ALPHA BETA PRECURSOR (FRAGMENT).
LD78 ALPHA BETA PRECURSOR (FRAGMENT).
EUKARYOTA, METAZOA, CHORDATA, VERTEBRATA; MAMMALIA, EUTHERIA; PRIMATES;
                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE: 98308096.
YOUN B.S., ZHANG S., BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
HANGOC G., KWON B.S.;
"Isolation and characterization of LMC, a novel lymphocyte and
monocyte chemoattractant human CC chemokine, with myelosuppressive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Structure of a region of 181 kb containing five CC chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
0
            2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 120;
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                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
HEDRICK J.A., HELMS A., GORMAN D., ZLOTNIK A.;
SUBMITTED (NOV-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                        01-JAN'1998 (TREMBLREL. 05, CREATED)
01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
IL-10-INDUCIBLE CHEMOKINE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         activity.";
BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
EMBL: U91746; G2581781; -.
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Local Similarity 41.7%; Pred. No. 4.25e-02;
les 5; Conservative 5; Mismatches 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;
        3; Mismatches
                                                                                                                                                                   120 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL, AB007454; D1024963; EMBL, AF088219; G3719365; EMBL, AF055467; G3395776; PFAM; PF00048; 118; 1.
  7; Conservative
                                                                                                                                                          PRELIMINARY;
                                     72 QFCGDPKQEWVQ 83
                                                                         1 DICADPKKKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74 EVCTNPNDDWVQ 85
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                         ILINCK OR SCYA16.
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TISSUE=BRAIN;
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                                                                                                                                                                           015467;
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Matches
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CYPRINGS CARPIO (COMMON CARP).
EUKARYOTA, METAZOA; CHORDATA; VERTEBRATA; ACTINOPTERYGII; NEOPTERYGII;
TELEOSTEI; EUTELEOSTEI; OSTARIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
CYPRINIDAE; CYPRININAE; CYPRINGS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Gaps
ISHIZUKA K., IGATA-YI R., NARUSE K., NAKASHIMA H., OHUCHI K.,
KATSURAGI S., KIN Y., OHMOTO Y., NOMIYAMA H., IIO M., MIURA R.,
MIYAKAWA T.;
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01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
03-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
04-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
04-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
05-JUN-1998 (TREMBLEL. 06, LAST AND U
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"cDNA cloning of a carp CC chemokine homologous to mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 66; DB 4; Length 80;
Pred. No. 6.83e-02;
2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4; Indels
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                                                                                                           SUBMITTED (AUG-1995) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; D63785; D1010501; --
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ROSSI D.L., BAZAN J.F., ZLOTNIK A.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF006742; G2827882;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AB010469; D1032417; -...
SEQUENCE 101 AA: 11266 MW; 9CFBD540 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                        LD78 ALPHA BETA.
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LYMPHOTACTIN.
3290101C CRC32;
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01-NOV-1998 (TREMBLREL. 08, LAST SEQU
01-NOV-1998 (TREMBLREL. 08, LAST ANNO
CC CHEMOKINE-1.
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16
>80
80
8857 MW;
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CHAIN 25 97 I
SEQUENCE 97 AA; 11131 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68.08;
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7; Conservative
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17
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80 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 ICADPKKKWVQ 12
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SEQUENCE
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
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                                                                                                                                                                                                                                                                                                                                                                                                                     HONO SAPIENS (HUMAN).
BUKARYOTA; METALOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HROWAS R., GRAY P.W., CHANTRY D., GODISKA R., KRATHWOHL M., FIFE K., BELL G.I., TAKEDA J., ARONICA S., GORDON M., COOPER S., BROXNEYER H.E., KLEMSZ M.J.; "Cloning and characterization of exodus, a novel beta-chemokine."; BLOOD 89:3315-3322(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Gaps
                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHANG M.S., MCNINCH J., ELIAS III C., MANTHEY C.L., GROSSHANS D., MENG T., BOONE T., ANDREW D.P.; SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
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J. EXP. MED. 185:0-0(0).
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25 93 MACROPHAGE-DERIVED CHEMOKINE.
93 AA; 10580 MW; 65EA63D2 CRC32;
  Length 101;
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Pred. No. 1.09e-01;
2; Mismatches 2; Indels
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Score 66; DB 13; Length 101,
Pred. No. 6.83e-02;
4; Mismatches 1; Indels
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01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                        01-JUL-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
MACROPHAGE-DERIYED CHEMOKINE PRECURSOR.
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63.6%;
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        Query Match
Best Local Similarity 54.5%;
Matches 6; Conservative
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MEDLINE; 97275143.
                                                                                                                72 EFCSDPKLRWV 82
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1 DICADPKKKWV 11
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Gaps
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Pred. No. 1.09e-01;
2; Mismatches 2; Indels
                                                     10691 MW; 1526B4C0 CRC32;
EMBL; U64197; G1778717; -.
PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; i18; 1.
SEQUENCE 95 AA; 10691 MW; 152684C0 CI
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                                                                                               uvery Match 67.0%;
Best Local Similarity 60.0%;
Matches 6; Conservative
                                                                                                                                                                                72 VCANPKQTWV 81
                                                                                                                                                                                                                   2 ICADPKKKWV 11
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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 17:56:21 2000; MasPar time 3.58 Seconds 134.279 Million cell updates/sec

Tabular output not generated.

>US-09-150-813-68 (1-12) from US09150813.pep 97 Description: Perfect Score: Sequence: Title:

1 DICADPKKKWVQ 12

PAM 150 Gap 15 Scoring table:

122810 seqs, 40068593 residues

Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

Mean 24.895; Variance 36.317; scale 0.685 pir60 1:pir1 2:pir2 3:pir3 4:pir4 Statistics:

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Pred. No.	7.77e-08	3.65e-07	3.65e-07	1.01e-06	1.68e-06	4.62e-0b	1.26e-05	1.26e-05	1.26e-U5	3.39e-05	3.39e-05	9.08e-05	9.08e-05	9.08e-05	1.48e-04	1.48e-04	1.48e-04	1.48e - 04	1.48e - 04	1.48e-04	0-000	2000.0		6.31e-04
	Description	eotaxin precursor - h		eotaxin precursor - g	monocyte chemoattract	chemoatt	PDGF-inducible JE gly	monocyte chemoattract	monocyte chemoattract		monocyte chemotactic	immediate-early serum	monocyte chemoattract	Neutrophil attractant	monocyte chemoattract	monocyte chemoattract	interleukin-8 - dog	interleukin-8 - sheep	interleukin 8 - sheep	alveolar macrophage c	STUDENT 8 - BINDING	THOUT TO THE TOTAL TOTAL	macrophage initammato	ota	interleukin-8 - rabbi
	ID	TC4912	TC2478	148099	A60299	JC2136	A30209	A39296	JC2336	146857	A54678	507723	JC2417	148148	148147	A46539	JN0841	146997	542496	444253		A53096	I52322	JC5295	146871
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monocyte chemoattract interleukin-8 homolog pre-B-cell growth-sti cytokine SDF-1-beta - cytokine SDF-1-beta - cytokine SDF-1-beta - cytokine - mouse macrophage inflammato interleukin-8 precurs lymphocyte and monocyte adherence-in macrophage inflammato macrophage inflammato ID78-beta protein pre-lymphotactin precurso immune activation gen Chitin synthetase I monocytic cytokine FI transformation-induced RSV-induced protein - TCA3 protein - mouse lymphotactin precurso lymphotactin precurso hypothetical protein SERA antigen/papain-1	
A28815 153416 601540 181182 A32393 A32393 A32393 A32393 A327034 JE0177 C60407 A30574 B35673 ETMSL ETMSL ETMSL ETMSL ETMSL ETMSL ETMSL ETMSL ETMSL ETMSL ETMSL ETMSL ETMSL ETMSL ETMSL ETMSL ETMSL S26736 S26736 S24236 S24236 S24236 S24236 S24236 S27611	
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733 711 711 711 700 660 660 660 660 660 670 870 870	
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	

ALIGNMENTS

1 JG4912 #type complete cotaxin precursor - human ectaxin precursor - human fformal_name Homo sapiens #common_name man fformal_name Homo sapiens #common_name man fformal_name Homo sapiens #common_name man librow-1996 #sequence_revision Ol-Nov-1996 #text_change 13-Nov-1998 #sequence_revision Ol-Nov-1996 #text_change Christophers, E.; Schlueter, C.; Richter, E.; Noso, N.; Kulke, R. Encher Bartels, J.; Schlueter, C.; Richter, E.; Noso, N.; Kulke, R. Bartels, J. Schlueter, C.; Schlueter, C.; Sichter, E.; Noso, N.; Kulke, R. Bartels, J.; Schlueter, C.; Schlueter, E.; Noso, N.; Kulke, R. Bartels, J.; Schlueter, C.; Schlueter, E.; Noso, N.; Kulke, R. Variants. cession JC4912 mRNA expression, and identification of ectaxin sequence variants. preliminary ##mosicule_type mRNA ##residues 1.97 ##label BAR ##residues 1.97 #flabel BAR ##residues 1.97 #flabel BAR ##residues 1.97 #flabel BAR ##residues 1.97 #flabel BAR ##residues ##product dermal fibroblast ##product dermal fibroblast ##product ectaxin fastaus predicted #label SiGN #product ectaxin fastaus predicted #label MAT ##product ectaxin fastaus predicted #label SiGN #product ectaxin fastaus predicted #label MAT ##product ectaxin fastaus predicted #label SiGN #product ectaxin fastaus predicted #label SiGN #product ectaxin fastaus predicted #label SiGN #product ectaxin fastaus fastaus fastaus fastaus fastaus #product ectaxin fasta
ENTRY ENTRY DATE ACCESSIONS REFERENCE #authors #intile #title #title ##residues ##re

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##cross-references EMBL:X77603; NID:9602551; PID:9602552
This protein is identified as a potent eosinophil chemoattractant.
FICATION #superfamily macrophage inflammatory protein
DS 91ycoprotein
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#title Constitutive and allergen-induced expression of eotaxin mRNA #cross-references MUID:95173589
Biochem. Biophys. Res. Commun. (1994) 205:788-794
Ectaxin: Cloning of an eosinophil chemoattractant cytokine
and increased mRNA expression in allergen-challenged
                                                                                                                                                                                                                                                               #domain signal sequence #status predicted #label SIG\
#product ectaxin #status predicted #label MAT\
#binding_site carbohydrate (Thr) (covalent) #status
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rothenberg, M.E.; Luster, A.D.; Lilly, C.M.; Drazen, J.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       eotaxin precursor - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Gaps
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20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
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A34561; I57488; JC1096
                                                                                                                                                                                                                                                                                                                                           #length 96 #molecular-weight 10695 #checksum 7329
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Pred. No. 3.65e-07;
0; Mismatches 0; Indels
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Pred. No. 3.65e-07;
0; Mismatches 0; Indels
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                                                                                                                                        1-96 ##label JOS
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                                                           guinea-pig lungs.
#cross-references MUID:95091818
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Local Similarity 100.0%;
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Best Local Similarity 100.0%;
Matches 11; Conservative
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                                                                                                                  ##molecule_type mRNA
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SUMMARY
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Follins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
Mol. Cell. Biol. (1989) 9:4687-4695
The human homolog of the JE gene encodes a monocyte secretory
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                      #title Structure of human monocyte chemotactic protein gene and its #cross-references MUID:90290466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Furutani, Y.; Nomura, H.; Notake, M.; Oyamada, Y.; Fukui, T.; Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K. Biochem. Blophys. Res. Commun. (1989) 159:249-255 Cloning and sequencing of the CDNA for human monocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.; Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E. Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854 Complete amino acid sequence of a human monocyte
                                                                                                                                                                                                                                                                                                                                                                             ##residues 1-99 ##label ROL
##cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701;
Biochem. Biophys. Res. Commun. (1990) 169:346-351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #authors Yoshimura, T.; Leonard, E.J.
#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references MUID:92095166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ##Status preliminary; translated from GB/EMBL/DDBJ#mmonians
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                                                                                                                                                            ##cross-references GB:M37719; NID:9187447; PID:9487124
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##Cross-references GB:S71513; NID:9240867; PID:9240868
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##residues
##cross-references GB:M24545; NID:9187434; PID:9307163
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##experimental_source glioma cell line U-105MG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             M.I.; Leonard, E.J.
FEBS Lett. (1989) 244:487-493
                                                                                                                                           1-99 ##label SHY
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#accession A32300
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Hitle Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.
#cross-references MUID:90211336
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#formal_name Sus scrofa domestica #common_name domestic pig
30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change
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                                                                                                                                                                                                                                                                                                                                                                         Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill, J.F.; Kolattukudy, P.E.
Mol. Cell. Biochem. (1993) 126:61-68
The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.
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#modified.site pyrrolidone carboxylic acid (Gln) (in mature form) #status experimental\
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chemoattractant, a putative mediator of cellular immune
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#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflammatory protein
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Pred. No. 1.01e-06;
1; Mismatches 1; Indels
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##cross-references GB:S69738; NID:9545464; PID:9545465
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24-28,'O',30-99 ##label YEO
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hes 10; Conservative
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Kawahara, R.S.; Deuel, T.F.
J. Biol. Chem. (1989) 264:679-682
J. Biol. Chem. (1989) 264:679-682
Platelet derived growth factor-inducible gene JE is a member
of a family of small inducible genes related to platelet
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Scheit, K.H.
Biochem. Biophys. Res. Commun. (1994) 199:962-968
Biochem. Liophys. Res. Commun. (1994) 199:ede-968
Boctine luteal cells express monocyte chemoattractant
protein-1 (MCP-1): Analysis by polymerase chain reaction
and cDNA cloning.
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#length 99 #molecular-weight 10976 #checksum 9768
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submitted to the EMBL Data Library, July 1994
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Pred. No. 1.68e-06;
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##residues 1-148 ##label KA2
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#accession A44771
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Best Local Similarity 75.0%;
Matches 9; Conservative
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#formal_name Bos primigenius indicus #common_name zebu cattle
20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
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#product monocyte chemoattractant protein 1 #status
predicted #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status
                                                                                                                                                                                                                                                                                                                                                    #authors Wempe, F.; Henschen, A.; Scheit, K.H.
#journal DNA Cell Biol. (1991) 10:671-679
#title Gene expression and CDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoatractant protein-1 (MCP-1).
                                                                                                                                                                                                                           monocyte chemoattractant protein 1 precursor - bovine monocyte chemotactic factor 1; seminal plasma protein P6 #formal_name Bos primigenius taurus #common_name cattle 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
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Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
Characterization of the bovine monocyte chemoattractant
 #length 148 #molecular-weight 16326 #checksum 5278
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                                              Length 148;
                                     Score 86; DB 2; Length 148;
Pred. No. 4.62e-06;
2; Mismatches 1; Indels
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##residues 1-99 ##label WEM
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Best Local Similarity 75.0%;
Matches 9; Conservative
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##molecule_type mRNA
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#authors yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146.3483-3488
#title Neutrophil attractant/Activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.
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Genomics (1994) 21:403-408

The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome
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#title Human monocyte chemotactic protein-3 (MCP-3): Molecular cloning of the cDNA and comparison with other chemokines.
                                                                                                                                                                                                                                                                                           monocyte chemoattractant protein-1 - rabbit
#formal_name Oryctolagus cuniculus #common_name domestic
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28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
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                                                 Score 84; DB 2; Length 99;
Pred. No. 1.26e-05;
2; Mismatches 1; Indels
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86.6%; Score 84; DB 2; Length 125;
Best Local Similarity 90.9%; Pred. No. 1.26e-05;
Matches 10; Conservative 0; Mismatches 1: Thank
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#cross-references MUID:94375065
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                                                 Query Match
Best Local Similarity 75.0%;
Matches 9; Conservative
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                Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Liauzun, P.; Magazin, M.; Miloux, B.; Minty, C.; Ramond, P.; Vita, N.; Lupker, J.; Shire, D.; Ferrara, P.; Captt, D.; Vita, Submitted to the EMBL Data Library, March 1993
Molecular cloning of MCP-3: a human monocyte-derived monocyte
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Biochem. Blophys. Res. Commun. (1991) 174:504-509
Molecular cloning of rat moncoyte chemoattractant protein-1
(MCP-1) and its expression in rat spleen cells and tumor
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Pred. No. 3.39e-05;
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##exross references GB:MS7441; NID:9205333; PID:9205334
##experimental_source spleen cells
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Lys and GCT for residue 63 as Leu
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#map_position 17q11-17q12
#introns
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#cross-references MUID:91128376
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llarity 75.0%;
Conservative
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Yoshimura, T.; Johnson, D.G.
J. Immunol. (1993) 151:6225-6236
CDNA cloning and expression of guinea pig neutrophil
attractant protein-1 (NAP-1): NAP-1 is highly conserved in
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Biochem. Biophys. Res. Commun. (1994) 205:148-153
Porcine luteal cells express monocyte chemoattractant
protein-2 (MCP-2): Analysis by cDNA cloning and northern
                                                                                                                                                                                                                                                                                                                                      JC2417 #type complete
monocyte chemoattractant protein-2 precursor - pig
monocyte chemoattractant admestica #common_name domestic pig
#formal_name sus scrofe domestica #common_name domestic pig
24-ReD-1995 #sequence_revision 24-ReD-1995 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  #domain signal sequence #status predicted #label SIGN #product monocyte chemoattractant protein-2 #status predicted #label MAT gth 99 #molecular-weight 10903 #checksum 7556
                  *product immediate early serum-responsive protein JE *status predicted *label MAT
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Neutrophil attractant protein-1 - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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#length 101 #molecular-weight 11414 #checksum 2363
#domain signal sequence #status predicted #label
                                                            #molecular-weight 16460 #checksum 4876
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Pred. No. 9.08e-05;
2; Mismatches 2; Indels
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2; Mismatches 1
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                                                                                                                    Score 82;
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#cross-references MUID:94065176
#accession 148148
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Similarity 66.7%;
8; Conservative
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Similarity 75.0%;
9; Conservative
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                                                                                                                                                                                                                                                                                                                                                                        #title cDNA cloning of guinea pig monocyte chemoattractant protein-1 and expression of the recombinant protein.
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#title Cloning, genomic organization, and chromosomal localization of the Scya5 gene encoding the murine chemokine RANTES.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     #authors Schall, T.J.; Simpson, N.J.; Mak, J.Y.
#journal Eur. J. Immunol. (1992) 22:1477-1481
#title Molecular cloning and expression of the murine RANTES
Cytokine: structural and functional conservation between
#cross-references Muld:92289805
                                                      Gaps
                                                                                                                                                                                                    148147 #type complete
monocyte chemoattractant protein-1 - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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18-Jun-1993 #sequence_revision 16-Aug-1996 #text_change
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  Score 80; DB 2; Length 101;
Pred. No. 9.08e-05;
2; Mismatches 1; Indels
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##cross-references GB:L04985; NID:9349820; PID:9349821
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##cross-references GB:S37648; NID:9250207; PID:9250208
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J. Immunol. (1993) 150:5025-5032
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I48875; A46539; I48654; I56970
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Query Match
Best Local Similarity 75.0%;
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Best Local Similarity 66.7%;
Matches 8; Conservative
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                                                                             75 QLCLDPKKKWVQ 86
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##molecule_type mRNA
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#authors Neilson, E.G.; Krensky, A.
#journal Kidney Int. (1992) 41:220-225
#title Isolation and characterization of CDNA from renal tubular epithelium encoding murine Rantes: A small intercrine from the Scy superfamily.
                                                                                                                                 #journal Mol. Cell. Biol. (1994) 14:2914-2925
#title Definition of a lipopolysaccharide-responsive element in the 5'-flanking regions of Murantes and crg-2.
                                                                                                       Shin, H.S.; Drysdale, B.E.; Shin, M.L.; Noble, P.W.; Fisher,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                *superfamily macrophage inflammatory protein chemotaxis; cytokine; immediate-early protein; inflammation
##experimental_source macrophage cell line PU5-1.8
##note sequence extracted from NCBI backbone (NCBIN:106768, NCBIP:106770)
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##Indiacute__ryre mixer.
##Cross-references GB:M7747; NID:9200649; PID:9200650
##Cross-references GB:M7747; NID:9200649; PID:9200650
This chemoattractant for monocytes but not neutrophils is an immediate-early response protein to LPS stimulation.
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#product monocyte chemoattractant cytokine RANTES
#status predicted #label MAT
#length 91 #molecular-weight 10071 #checksum 3010
                                                                                                                                                                                                                                                                                                                                           ##residues
##rross.references EMBL:X70675; NID:9475205; PID:9475206
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Best Local Similarity 66.7%; Pred. No. 1.48e-04;
Matches 8; Conservative 3; Mismatches 1; Indels
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##residues 1-93
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protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 18:09:53 2000; MasPar time 5.11 Seconds 128.201 Million cell updates/sec

Tabular output not generated.

Run on:

>US-09-150-813-73 (1-12) from US09150813.pep 86 Description: Perfect Score:

1 KACLNPASPMVK 12

Sequence:

PAM 150 Gap 15 Scoring table:

179066 seqs, 54579741 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

sptrembl9
1:sp_archea 2:sp_bacteria 3:sp_fungi 4:sp_human
1:sp_archea 2:sp_bacteria 6:sp_mammal 7:sp_mhc 8:sp_organelle
5:sp_hade 10:sp_plant 11:sp_rodent 12:sp_unclassified
13:sp_vertebrate 14:sp_virus

Mean 23.076; Variance 25.745; scale 0.896

Statistics:

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Pred. No.	4.43e-07	5.71e-06	2.01e-05	1.52e-02	4.76e-02	4./be-02	4.76e-02	4./be-02	4.76e-02	4.76e-02	4.76e-02	4.76e-02	4.76e-02	4.76e-02	4.76e-02	4.76e-02	8.36e-02	1.46e-01	1.46e-01	1.46e-01	
	Description	PERMEABILITY FACTOR 2	GRO.	MELANOMA GROWTH STIMUL	ALPHA-TUBULIN (FRAGMEN	ALPHA-TUBULIN ISOTYPE	ALPHA-4-TUBULIN (FRAGM	ALPHA TUBULIN (ALPHA-T	ALPHA-TUBULIN.	TUBULIN ALPHA CHAIN.	ALPHA-1 TUBULIN.	ALPHA-TUBULIN.	ALPHA-2-TUBULIN.	ALPHA-2 TUBULIN.	ALPHA-1-TUBULIN.	ALPHA-TUBULIN.	SUP35 (FRAGMENT).	ALPHA-3-TUBULIN (FRAGM	TBA-2 PROTEIN.		1,4-ALPHA-GLUCAN BRANC	
	ID	028724	046678	062764	P92126	026047	001944	013748	042271	076659	094985	026595	001942	094978	001941	027122	091855	001943	018688	017409	008131	
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	Query Match Length DB	99	103	59	377	331	359	449	449	450	451	451	451	451	451	451	614	443	449	449	852	1
dР	Query Match 1	1 5 0 X	84.0	82.6	8.69	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	. 49	7.50	. ני		•
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	4.38e-01	7.52e-01	7.52e-01	1000	10-97C-/	1.28e+00	2.17e+00	2 176+00	000	2.1/e+00		2.17e+00	2.17e+00		00 - 1 - 1 - 00 - 1 - 1 - 00 - 1 - 1 - 00 - 1 - 00 - 1 - 00 - 00 - 1 - 00 -	5.1/e+00	3.66e+00	2 660+00		٠	3.66e+00	3.66e+00	3 666+00	00+099			6.11e+00		٠	0.114.0
ALPHA-TUBULIN (FRAGMEN	F16D3.1 PROTEIN.	PHOSDUCIN.	NEW COLUMN THE TANK OF THE PROPERTY OF THE PRO	ALPRA-10BOLLIN (INCIDENT	T28D6.2 PROTEIN.	ZEAXANTHIN GLUCOSYL TR	UVDOWUEFTCAL 11 8 KD P	THE CHARLEST THE PARTY OF THE P	,		HYPOTHETICAL 30.0 KD P	PATCHED HOMOLOG (PIC).			PATCHED PROTEIN.	PATCHED.	VAN DECEMBEN DRECHESOR.		ING PROIDIN	UNKNOWN FUNCTION.	CIS4.	DNA-RINDING PROTEIN.	D CH C OF TROTHER COMMO	HIPOTHELLCAL VO.	CYCLOSPORIN SYNTHEIASE	PTC1 (FRAGMENT).	T NIGHTOGOCOATO			RETINOID X RECEPTOR IN
P92124	019490	077560	0000	P92120	018154	072650	10000	COTERO	032305	063420	065707	013463	1000	CTTTQO	090693	013635	1000	2766/0	043568	046447	014544	11010	10.00	084657	009164	012335		091334	m	060974
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ALIGNMENTS

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265 ACFNPESQMVK 275
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NON_TER
SEQUENCE
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001944
001944;
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ARȚIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; CAPRINAE; OVIS.
                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN-ATCC 30860;
MEDLINE: 97109817.
KEELING P.J., DOOLITILE W.F.;
"Alpha-tubulin from early-diverging eukaryotic lineages and the evolution of the tubulin family.";
MOL. BIOL. EVOL. 13:1297-1305(1996).
EMBL; U66907; G1755092; ...
PFAM; PF00091; tubulin; 1.
NON_TER
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0
                                                                                                                                                                                                                                                                             EUKARYOTA, METAŻOA, CHORDATA, VERTEBRATA, MAMMALIA, EUTHERIA,
PERISSODACTYLA; EQUIDAE; EQUUS.
                                                                                                             0; Indels
                                                                                          Length 103;
                                                                                                                                                                                                             01-AUG-1998 (TREMBLREL. 07, CREATED)
01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
MELANOMA GROWTH STIMULATORY ACTIVITY HOMOLOG (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                        1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 60; DB 5; Length 377;
Pred. No. 1.52e-02;
1; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                               82.6%; Score 71; DB 6; Length 59; 72.7%; Pred. No. 2.01e-05;
                                                                                                                                                                                                                                                                                                                               RIEDER S., CHECA-CORTES M.L., JOERG H., STRANZINGER G.; SUBMITTED (MAR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AF053497; G3033533; -.
                              YOSHIMURA T., MODI W.S.;
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U95814; G2735499; -.
SEQUENCE 103 AA; 10820 MW; C34945B7 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE) 01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE) ALPHA-TUBULIN (FRAGMENT).
                                                                                      Score 73; DB 6; Le
Pred. No. 5.71e-06;
                                                                                                           1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               377 AA; 41951 MW; 604D34D6 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EUKARYOTA; MICROSPORIDIA; NOSEMATIDAE; NOSEMA.
                                                                                                                                                                                                 59 AA.
                                                                                                                                                                                                                                                                                                                                                                          59 AA; 6344 MW; 0C5EA8CC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                       2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          377 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P92126;
01-MAY-1997 (TREMBLREL. 03, CREATED)
                                                                                                                                                                                               PRT;
                                                                                       84.9%;
90.0%;
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Best Local Similarity 72.7%;
                                                                                                          9; Conservative
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Best Local Similarity 72.7%;
Matches 8; Conservative
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                                                                                                                                                                                                                                                                   EQUUS CABALLUS (HORSE).
                                                                                                Local Similarity
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2 ACLNPASPMVK 12
                                                                                                                              81 CLNPAAPMVK 90
                                                                                                                                          3 CLNPASPMVK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                       36 TCLNPEAPMVK 46
                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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                                                                                     Query Match
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062764
062764;
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P92126
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PARACENTROTUS LIVIDUS (COMMON SEA URCHIN).
EUKARYOTA: METAZOA; ECHINODERWATA; ECHINOZOA; ECHINOIDEA; EUECHINOIDEA; ECHINOIDEA; ECHINIDAE; PARACENTROTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
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TISSUE-REGENERATING LIMB BUD;
MEDLINE; 97286098.
VARADARAJ K., KUMARI S.S., SKINNER D.M.;
Molecular characterization of four members of the alpha-tubulin gene family of the Bermuda land crab Gecarcinus lateralis.";
J. EXP. 2001. 278:63-77(1997).
EMBL; U92648; G2098757;
PFAM: PF00091; tubulin; 1.
NON_TER
                                                                                                                                                                                                                                                                                                                                                                                                                        GIANGUZZA F., CASANO C., RAGUSA M.;
"Alpha-tubulin marker gene of neural territory of sea urchin embryos detected by whole-mount in situ hybridization.";
INT. J. VBOG. 39:477-483(1995).
EMBL; SBOG91; tubulin; 1.
NON-TER
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01-70L-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
ALPHA-4-TUBULIN (FRAGMENT).
ECRARCINUS LATERALIS.
EUKARYOTA, METAZOA; ARTHROPODA; CRUSTACEA; MALACOSTRACA;
EDWALACOSTRACA; EDCARIDA; DECAPODA; PLEOCYEMATA; BRACHYURA;
ERACHYRHYNCHA; GRAPSOIDEA; GECARCINIDAE; GECARCINUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         / Match 67.4%; Score 58; DB 5; Length 331; Local Similarity 58.3%; Pred. No. 4.76e-02; As 7; Conservative 4; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            67.4%; Score 58; DB 5; Length 359; 58.3%; Pred. No. 4.76e-02; vative 4; Mismatches 1; Indels
                                                                                                                                               01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
ALPHA-TUBULIN ISOTYPE 2 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    331 331
331 AA; 36955 MW; 1CCB86D1 CRC32;
                                                                                                            PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity 58.3%;
Matches 7; Conservative
                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                   PARACENTROTUS LIVIDUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              172 NACFEPANQMVK 183
2 ACLNPASPMVK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 KACLNPASPMVK 12
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1 KACLNPASPMVK 12
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RESULT

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Gaps

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EUKARYOTA; METAZOA; ARTHROPODA; CRUSTACEA; BRANCHIOPODA; ANOSTRACA;
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Best Local Similarity 58.3%;
Matches 7; Conservative
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                                                                                                                                                                                                                                                              PRELIMINARY;
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                                                                                                                                                                                                                                                                                                            01-NOV-1998 (TREMBLREL.
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                                                                                                                                                                                       293 NACFEPANOMVK 304
                                                                                                                                                                                                               1 KACLNPASPMVK 12
                   ARTEMIIDAE; ARTEMIA.
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Q94985
Q94985;
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Q26595
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BRACHTDANIO REKLO (ZEBRAFISH) (ZEBRA DANIO).

BRACHTDANIO REKLO (ZEBRAFISH) (ZEBRATA: ACTINOPTERVGII; NEOPTERYGII; EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA: ACTINOPTERYGII; NEOPTERYGII; TELEOSTEI; DSTRRIOPHYSI; CYPRINIFORMES; CYPRINOIDEA; CYPRINIDAE; RASBORINAE; DANIO.
                                                                                                     HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                              MEDLINE; 98126445.

DODE C., WELLL D., LEVILLIERS J., CROZET F., CHAIB H., LEVI-ACOBAS F., GUILFORD P., PETIT C.;

GUILFORD P., PETIT C.;

Sequence characterization of a newly identified human alpha-tubulin gene (TUBA2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 58; DB 13; Length 449;
Pred. No. 4.76e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1; Indels
                                                                                                                                                                                                                                                                                                                                          Score 58; DB 4; Length 449;
Pred. No. 4.76e-02;
                                                                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                       BONALDO M., SU L., LAWTON L.N., SOARES M.B.;
SUBMITTED (JUL-1993) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF005392; G2843123; --
EMBL; L11645; G306451; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.

BORMANN P., ZUMSTEG V.M., ROTH L.W.A., REINHARD E.;
J. NEUROSCI. RES. 0:0-0(1997).

J. NEUROSCI. L. AFO 20550; G2599500; -.

PFAM: PFO0091; tubulin: 1.

SEQUENCE 449 AA; 49953 MW; EOBEF20C CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JAN-1998 (TREMBLREL. 05, CREATED)
01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                       01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                   449 AA; 49828 MW; 85360775 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                     4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  449 AA.
                 449 AA
                                                                           ALPHA TUBULIN (ALPHA-TUBULIN) (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
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                 PRT;
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01-NOV-1998 (TREMBLREL. 08,
01-NOV-1998 (TREMBLREL. 08,
                                                                                                                                                                                                                                                SEQUENCE OF 352-449 FROM N.A.
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Best Local Similarity 58.3%;
Matches 7; Conservative
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Local Similarity 58.3%;
Les 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
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                   PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                    1 KACLNPASPMVK 12
                                                                                                                                                     SEQUENCE FROM N.A. MEDLINE; 98126445.
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076659
076659;
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SCHISTOSOMA MANSONI (BLOOD FLUKE); TREMATODA; DIGENEA; STRIGEIDIDA;
SCHISTOSOMATOIDEA; SCHISTOSOMATIDAE; SCHISTOSOMA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEDOROV A.N., KORNEEV S.A., QUINN Z.A., BLACKSHAW S.E., DAVIES J.A.; SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL: U67675; G1527170; ---
EMBL: U67675; G1527190; ---
EMBL: U67677; G1532191; ---
EMBL: PFO0091; tubulin; 1.
SEQUENCE 451 AA; 50123 MW; 831B07C4 CRC32;
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HIRUDO MEDICINALIS (MEDICINAL LEECH).
EUKARYOTA; METAZOA; ANNELIDA; CLITELLATA; HIRUDINIDA; HIRUDINEA.
ARYNCHOBDELLIDA; HIRUDINIFORMES; HIRUDINIDAE; HIRUDO.
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WEBSTER P.J., SETA K.A., CHUNG S.C., MANSOUR T.E.;
MACDNA encoding an alpha-tubulin from Schistosoma mansoni.";
MOL BIOCHEM, PARSITOL. 51:169-170(1992).
EMBL; M80214; G161072; ---
PRAM; PF00091; tubulin; 1.
SEQUENCE 451 AA; 50007 MW; B089AlDF CRC32;
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SEQUENCE FROM N.A.
ZHENG Y., ROY P., LIANG P., MACRAE T.H.;
"Cloning of an alpha-tubulin cDNA from Artemia franciscana.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     67.4%; Score 58; DB 5; Length 451; 58.3%; Pred. No. 4.76e-02; Aative 4; Mismatches 1; Indels
                                                                                                                                                                                            Query Match
Best Local Similarity 58.3%; Pred. No. 4.76e-02;
Matches 7; Conservative 4; Mismatches 1; Indels
                                                                                        CONSTITED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AF078670; G3348122; ... SEQUENCE 450 AA; 49938 MW; 8B76A064 CRC32;
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01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
ALPHA-TUBULIN.
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08, LAST ANNOTATION UPDATE)
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"Molecular characterization of four members of the alpha-tubulin gene family of the Bermuda land crab Gecarcinus lateralis.";
J. EXP. 2001. 278:63-77(1997).
EMBL; U92646; G2098753;
PPAM; PF00091; tubulin; 1.
SEQUENCE 451 AA; 50342 MW; 17EB1096 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEOGROY A.N., KORNEEV S.A., QUINN Z.A., BLACKSHAW S.E., DAVIES J.A.; SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL, U67676; G1537172; ---
EMBL, U67678; G1532193; ---
PPAM; PF00091; tubulin; 1.
SEQUENCE 451 AA; 50148 MW; 34321A1D CRC32;
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EUKARYOTA; METAZOA; ANNELIDA; CLITELLATA; HIRUDINIDA; HIRUDINEA;
ARYNCHOBDELLIDA; HIRUDINIFORMES; HIRUDINIDAE; HIRUDO.
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EUKARYOTA; METAZOA; ARTHROPODA; CRUSTACEA; MALACOSTRACA;
EUMALACOSTRACA; EUCARIDA; DECAPODA; PLECCYEMATA; BRACHYURA;
BRACHYRHYNCHA; GRAPSOIDEA; GECARCINIDAE; GECARCINUS.
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Pred. No. 4.76e-02;
4; Mismatches 1; Indels
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01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
ALPHA-2-TUBULIN.
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01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
01-NOY-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
ALPHA-2 TUBULIN.
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001941
01-0197 (TREMBLREL. 04, CREATED)
01-UUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
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TISSUE-REGENERATING LIMB BUD;
MEDLINE; 97288098.
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Local Similarity 58.3%;
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  293 NACFEPANOMVK 304
                                           1 KACLNPASPMVK 12
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GECARCINUS LATERALIS.
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1 KACLNPASPMVK 12
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OC GECARCIT
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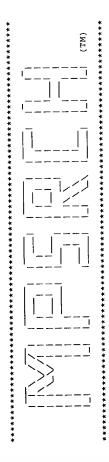
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SEQUENCE FROM N.A.
TISSUE-REGENERATING LIMB BUD;
MEDLINE; 97288098.
VARADARA K., KUMARI S. S., SKINNER D.M.;
"Molecular characterization of four members of the alpha-tubulin gene family of the Bermuda land crab Gecarcinus lateralis.";
EXP. ZOOL. 278.63-77(1997).
EXBL: U92645; G2096751; -..
PFAM; PF00091; tubulin; 1.
SEQUENCE 451 AA; 50179 MW; F926FE41 CRC32;
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EUKARYOTA; METAZOA; ECHIURA; XENOPNEUSTA; URECHIDAE; URECHIS
EUKARYOTA; METAZOA; ARTHROPODA; CRUSTACEA; MALACOSTRACA;
EUMALACOSTRACA; EUCARIDA; DECAPODA; PLEOCYEMATA; BRACHYURA;
BRACHYRHYNCHA; GRAPSOIDEA; GECARCINIDAE; GECARCINUS.
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Query Match

Best Local Similarity 58.3%; Pred. No. 4.76e-02;

Matches 7; Conservative 4; Mismatches 1; Indels
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SUBMITTED (JUN-1995) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U30467; G942596; ...
EMBL; DF00091; tubulin; 1.
SEQUENCE 451 AA; 50089 MW; FESEFFF3 CRC32;
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01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
ALPHA-TUBULIN.
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Q27122
Q27122;
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protein - protein database search, using Smith-Waterman algorithm MPsrch_pp

Fri Feb 4 18:15:31 2000; MasPar time 5.08 Seconds 128.999 Million cell updates/sec Run on:

>US-09-150-813-74 (1-12) from US09150813.pep 86 Tabular output not generated.

1 KACLNPASPMVQ 12 Description: Perfect Score: Sequence:

PAM 150 Gap 15 Scoring table:

179066 seqs, 54579741 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

sptremb19 Database:

1.5.p_archea 2:sp_bacteria 3:sp_fungi 4:sp_human 5:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle 9:sp_phage 10:sp_plant 11:sp_rodent 12:sp_unclassified 13:sp_vertebrate 14:sp_virus

Mean 22.969; Variance 26.140; scale 0.879

Statistics:

SUMMARIES

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

4.94e-05 5.51e-04 1.80e-03 9.70e-02 8.43e-01 8.43e-01 8.43e-01 1.43e+00 2.40e+00 Pred. No. PATONICAL 33.9 KD Z
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ALPHA-TUBULIN. MELANOMA GROWTH STIMUL 1,4-ALPHA-GLUCAN BRANC ALPHA-TUBULIN (FRAGMEN GAG PRO POL POLYPROTEI PERMEABILITY FACTOR 2 Description Q28724 O46678 O62764 Q08131 P92126 Q83391 O92804 O56220 O13713 026047 001944 013748 001942 Q94985 Q26595 076659 001941 065707 10 14 14 14 10 10 13 13 % Query Match Length DB Score Result So.

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ALPHA-TUBULIN.	ALPHA-2 TUBULIN.	SUP35 (FRAGMENT).	PATCHED HOMOLOG (PTC).	PATCHED HOMOLOGUE.	PATCHED PROTEIN.	PATCHED.	ORF 62.	DNA-BINDING PROTEIN (F	ALPHA-TUBULIN (FRAGMEN	ALPHA-3-TUBULIN (FRAGM	CIS4.	DNA-BINDING PROTEIN.	F15B9.7 PROTEIN.	NEUROFIBROMIN.	CYTOCHROME P450 (FRAGM	PTC1 (FRAGMENT).	TBA-2 PROTEIN.	ALPHA-1 TUBULIN.	GLYCOPROTEIN E.	CUS8.	HELICASE.	POLYKETIDE SYNTHASE MO	1,4-ALPHA-GLUCAN BRANC	NON-STRUCTURAL PROTEIN
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ALIGNMENTS

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		VERTEBRATA; MAMMALIA; EUTHERLA; AGUS.	KAJIKAWA O., WONG V.A., MONGOVIN	GRO homologues and their expression	:99	Indels			EUTHERIA;
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AA.	ED) SEQUENCE UPDATE) ANNOTATION UPDATE)	MAM		d the	CRC32; DB 6; 4.94e-05	hes	AA.	SEQUENCE UPDATE) ANNOTATION UPDATE)	۱; MA
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PR	- 5	IT). A; VE FOLAG	II, F	homo] OKIN	ΩĐ	1;	Д	-	CHORDATA; VERTEBRATA; MAMMALIA;
	01, 01, 08, FRAG	RABB RDAT		GRO CYT	1 7102 MW; 81.48; 90.08;	e ^ 1	; ;	. 06, . 06, . 07,	ORDA
NARY	REL. REL. REL. REL.	CHO CHO CAE;	WHITE;	obit es."; 994). 343; SMALI		r v	IINAR	LREL	
PRELIMINARY	(TREMBLREL. (TREMBLREL. (TREMBLREL. FACTOR 2 (ORYCTOLAGUS CUNICULUS (RABBIT). EUKARYOTA, METAZOA, CHORDATA; VERT. LAGMORPHA: LEPORIDAE; ORYCTOLAGUS SEGIENCE FROM N.A.	STRAIN-NEW ZEALAND WHITE; MEDLINE; 95129889. JOHNSON M.C., GOODMAN R.B.	MAKILN 1.K.; "Cloning of two rabbit GRO homologues alveolar macrophages."; GENE 151:337-338(1994). EMBL: LS9933; G455343; PROSITE: PS00471; SMALL_CYTOKINES_CXC; PFAM: PF00048; 118; 1.	l 66 AA; - Similarity	9; Conservative PAAPMV 52 : PASPMV 11	PRELIMINARY;	(TREMBLREL. (TREMBLREL. (TREMBLREL.	(SHEEP). METAZOA;
PR	000	MET N: LE	V ZEA 95129 .C.,	x.; of tw nacro 337-3 933; PSO04	66 imila	9; COR ACLNPAAPMV ACLNPASPMV	<u>P</u>		
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T Q28724	Q28724; 01-NOV-1996 01-NOV-1996 01-NOV-1998 PERMEABILITY	DEFICIOLAGUS CUNICU CUNTRACOLA; METAZOA LAGOMORPHA; LEPORI [1]	STRAIN-NEW ZEALAN MEDLINE; 95129889 JOHNSON M.C., GOO	MAKTIN 1.K.; "Cloning of two alveolar macro- GENE 151:337-33 EMBL; L28933; PROSITE; PS004	NON_TER SEQUENCE Query Match Best Local	Matches 43	T 2 046678	04 06 / 8; 01 - JUN - 1998 01 - JUN - 1998 01 - AUG - 1998	OVIS EUKAI
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EUPHYLLOPHYTES; SPERMATOPHYTA, MAGNOLIOPHYTA; EUDICOTYLEDONS; ROSIDAE;
EUPHORBIALES; EUPHORBIACEAE; MANIHOT.
                                                                                                                                                         Gaps
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; CAPRINAE; OVIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOY-1996 (TREMBLREL. 01, CREATED)
01-JAN-1998 (TREMBLREL. 05, LAST SEQUENCE UPDATE)
01-JAN-1999 (TREMBLREL. 09, LAST ANNOTATION UPDATE)
1,4-ALPHA-GLUCAN BRANCHING ENZYME PRECURSOR (EC 2.4.1.18)
(1,4-ALPHA-GLUCAN BRANCHING ENZYME R-3) (STARCH BRANCHING ENZYME)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SALEHUZAMAN S.N., JACOBSEN E., VISSER R.G.;
"Cloning, partial sequencing and expression of a cDNA coding for branching enzyme in cassava.";
PLANT MOL. BIOL. 20:809-819(1992).
-!- CATALYTIC ACTIVITY: FORMATION OF 1,6-GLUCOSIDIC LINKAGES OF
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PERISSODACTYLA; EQUIDAE; EQUUS.
                                                                                                                            Length 103;
                                                                                                                                                     0; Indels
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01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
MELANOMA GROWTH STIMULATORY ACTIVITY HOMOLOG (FRAGMENT).
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RIEDER S., CHECA-CORTES M.L., JOERG H., STRANZINGER G.;
SUBMITTED (MAR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF053497; G3033533;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 59;
                                           YOSHIMURA I., MODI W.S.;
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U95814; G2735499; -
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STRAIN=CV. M.COL 22; TISSUE-TUBEROUIS ROOTS;
SALEHUZZAMAN SNIM., JACOBSEN E., VISSER R.G.F.;
SUBMITTED (JAN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                      Score 66; DB 6; Le
Pred. No. 5.51e-04;
                                                                                 103 AA; 10820 MW; C34945B7 CRC32;
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Pred. No. 1.80e-03;
2; Mismatches 1
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                                                                                                                                                                                                                                                                       59 AA.
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88.9%;
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les 7; Conservative
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Matches 8; Conser
                              SEQUENCE FROM N.A.
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VIRUSES; RETROID VIRUSES; RETROVIRIDAE; MAMMALIAN TYPE B RETROVIRUSES.
                                                                                                                                                                                                                                                              Gaps
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          -!- SUBUNIT: MONOMER.
-!- PATHANA: THIRD SIEP IN STARCH BIOSYNTHESIS.
-!- SUBCELLULAR LOCATION: AMYLOPLAST.
-!- SIMILARIY: BELONGS TO FAMILY 13 OF GLYCOSYL HYDROLASES, ALSO KNOWN AS THE ALPHA-AMYLASE FAMILY.
EMBL; X77012; E96414;
--- EMBL; X77012; E96414;
--- EMBL; X770128; alpha-amylase; 1.
MENDEL; 13138; MANNes, SDE1; 2.
TRANSIT PEPTIDE; TRANSFERASE; GLYCOSYLITRANSFERASE;
STRRCH BIOSYNTHESIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.

STRAIN-ATCC 30866;

MEDLINE, 97.0966;

KELLING P.J., DOOLITTLE W.F.;

"Alpha-tubulin from early-diverging eukaryotic lineages and the evolution of the tubulin family.";

MOL. BIOL. EVOL. 13.1297-1305(1996).

EMBL; U66907; G1755092; -..

BPAM; PRO0091; tubulin; 1.

NON_TER 377 377
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MEDLINE; 87112944.
MOORE R., DIXON M., SMITH R., PETERS G., DICKSON C.;
"Complete nucleotide sequence of a Milk-transmitted mouse mamary
                                                                                                                                                                  TRANSIT 1 74 POTENTIAL.
CHAIN 75 852 1,4-ALPHA-GLUCAN BRANCHING ENZYME.
SEQUENCE 852 AA; 96684 MW; 7764CE83 CRC32;
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Pred. No. 9.70e-02;
3; Mismatches 2; Indels
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LAST ANNOTATION UPDATE)
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ilarity 58.3%;
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"Appendix 2: Retroviral taxonomy, protein structure, sequences, and
genetic maps.": (EDS.); RETROVIRUSES:757-757;
(IN) COFFIN J.M. (EDS.); RETROVIRUSES:757-757;
COLD SPRING HARBOR LABORATORY PRESS, NY, USA (1997).
                                                                                      NISHIO M., XU L., SASAKI M., HAGA S., OKUMOTO M., MORI N.,
SARKAR N.H., ACHA-ORBEA H., ENAMI J., IMAI S.;
SARKAR N.H., ACHA-ORBEA H., ENAMI J., IMAI S.;
"Complete Nucleotide Sequence of mouse mammary tumor virus from JYG
cloned wild mice: absence of bacterial insertion sequences in the
cloned viral gag gene.";
BREAST CANCER 1:89-94 (1994).
EMBL; D16249; D1004281; -.
PFAM; PF00098; Zf-CCHC; 1
PFAM; PF00007; gag_P24; 1.
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Pred. No. 8.43e-01;
7; Mismatches 0; Indels
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Pred. No. 8.43e-01;
7; Mismatches 0; Indels
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SUBMITTED (NOV-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF033807; G2801454; -.
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06, LAST SEQUENCE UPDATE)
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P30DU-P13PR-RT-IN.
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                         anslation of gag and pol.";
VIROL. 61:480-490(1987).
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Similarity 41.7%;
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nes 5; Conservative
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MOUSE MAMMARY TUMOR VIRUS.
VIRUSES; RETROID VIRUSES; RETROVIRIDAE; MAMMALIAN TYPE B RETROVIRUSES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17 9 PRELIMINARY; PRT; 307 AA.
013713;
01-JUN-1998 (TREMBLREL. 06, CREATED)
01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
SPACIACA 06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEVLIN K., CHURCHER C.M., BARRELL B.G., RAJANDREAM M.A., WOOD V.; SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- SUBCELLULAR LOCATION: NUCLEAR (POTENTIAL).
EMBL; 298596; E334264; -.
HYPOTHETICAL PROTEIN; NUCLEAR PROTEIN; DNA-BINDING; ZINC-FINGER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;;
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                                                                                                                                                                                                                                                                                                                                                                                                           Score 53; DB 14; Length 1754; Pred. No. 8.43e-01;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 307;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SYNECHOCYSTIS SP. (STRAIN PCC 6803).
BACTERIA; CYANOBACIERIA; CHROOCOCCALES; SYNECHOCYSTIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-FEB-1997 (TREMBLREL. 02, CREATED)
01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                         CHAPPEX C.; SUBMITTED (NOV-1997) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AF033807; G2801455; ... CHAIN 99 194 PP21 XX.
                                                                                         PETROPOULOS C.J.;
(IN) COFFIN J.M. (EDS.); RETROVIRUSES:757-757;
COLD SPRING HARBOR LABORATORY PRESS, NY, USA (1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUKARYOTA; FUNCI; ASCOMYCOTA; ARCHIASCOMYCETES; SCHIZOSACCHAROMYCETALES; SCHIZOSACCHAROMYCETACEAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60.5%; Score 52; DB 3; Lv 50.0%; Pred. No. 1.43e+00;
                                                                                                                                                                                                                                                                                                                                                                            196983 MW; 9BA7E7E1 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZN FING 184 199 C3H-TYPE.
SEQUENCE 307 AA; 33929 MW; 7B5BE6D8 CRC32;
                                                                                                                                                                                                                                                                                                                                                        P30DU-P13PR-RT-IN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    419 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             7; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SCHIZOSACCHAROMYCES POMBE (FISSION YEAST).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                              P8.
P27 CA.
                                                                                                                                                                                                                                                                                                                                   P14 NC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZEAXANTHIN GLUCOSYL TRANSFERASE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 50.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                   Ouery Match 61.6%;
Best Local Similarity 41.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                             5; Conservative
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                                                                                                                                                                                                                                                                                           252
495
744
1754
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                                                                                                                                                                                                                                                      194
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228 252
496 74
744 175
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                                                                                      STRAIN-PCC6803;
MEDLINE; 97061201.
KANEKO T., SATO S., KOTANI H., TANAKA A., ASAMIZU E., NAKAMURA Y.,
MIYAJIMA N., HIROSAWA M., SUGIURA M., SASAMOTO S., KIMURA T.,
HOSOUCHI T., MATSUNO A., MURAKI A., NAKAZAKI N., NARUO K., OKUMURA S.,
SHIMPO S., TAKEUCHI C., WADA T., WATANABE A., YAMADA M., YASUDA M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ARABIDOPSIS THALIANA (MOUSE-EAR CRESS).
EUKARYOTA: VIRIDIPLANTAE: STREPTOPHYTA; EMBRYOPHYTA; TRACHEOPHYTA;
EUPHYLLOPHYTES: SPERMATOPHYTA: MAGNOLIOPHYTA; EUDICOTYLEDONS; ROSIDAE;
CAPPARALES; BRASSICACEAE; ARABIDOPSIS.
                                                                                                                                                                                             "Sequence analysis of the genome of the unicellular cyanobacterium synchocystis sp. strain PCC6803. II. Sequence determination of the entire genome and assignment of potential protein-coding regions."; EMBL; D90899; D1017385; ...
EMBL; D90899; D1017385; ...
                                                                                                                                                                                                                                                                                                                                                                       0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SCHUELLER C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
BEVAN M., VAN DER SCHUEREN J., CHUANG Y-J., VOET M., ROBBEN J.
VOLCKAERT G., BANCROFT I., MEWES H.W., MAYER K.F.X., SCHUELLER
SUBMITTED (APR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                  Score 52; DB 2; Length 419;
Pred. No. 1.43e+00;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 268;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 51; DB 10; Length 268
Pred. No. 2.40e+00;
3; Mismatches 2; Indels
                                             SUBMITTED (JUN-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EU ARABIDOPSIS SEQUENCING PROJECT;
SUBMITTED (APR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AL022580; E1287627;
HYPOTHETICAL PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LT 12
026647
026647
026047
026047
01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
ALPHA-TUBULIN ISOTYPE 2 (FRAGMENT).
                                                                                                                                                                                                                                                                                                  419 AA; 45330 MW; 4208CF23 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           268 AA; 29999 MW; DE86BECE CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        268 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-AUG-1998 (TREMBLREL. 07, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-AUG-1998 (TREMBLREL. 07, L. 01-AUG-1998 (TREMBLREL. 07, L. HYPOTHETICAL 30.0 KD PROTEIN.
                                                                                                                                                                                                                                                                                                                                / Match 60.5%;
Local Similarity 77.8%;
Nes 7; Conservative
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Best Local Similarity 50.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
SEQUENCE FROM N.A.
                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                         331 CLNNAVPMV 339
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                                                                                                                                                                                                                                                                                                                                                                                                                    3 CLNPASPMV 11
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                  STRAIN-PCC6803;
                                                                                                                                                                                                                                                                                  TRANSFERASE.
                                                                                                                                                                                                                                                                                                     SEQUENCE
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065707
065707;
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PARACENTROTUS LIVIDUS (COMMON SEA URCHIN).
EUKARYOTA: METAZOA; ECHINODERMATA; ECHINOZOA; ECHINOIDEA; EUECHINOIDEA;
ECHINACEA; ECHINOIDA; ECHINIDAE; PARACENTROTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
TISSUE=REGENERATING LIMB BUD;
MEDILINE; 97288098.
VARBDARAJ K., KUMARI S.S., SKINNER D.M.;
"MOLECULAr characterization of four members of the alpha-tubulin gene family of the Bermuda land crab Gecarcinus lateralis.";
J. EXP. ZOOL. 278:63-77(1997).
PEMEI: U92648; G2098757;
PFAM: PF00091; tubulin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                       MEDLINE, 96015119.
GINGUZZA F., CASANO C., RAGUSA M.;
GIANGUZZA F., CASANO C., RAGUSA M.;
Alpha-tubulin marker gene of neural territory of sea urchin embryos detected by whole-mount in situ hybridization.";
INT. J. DEV. B.OL. 39:477-483(1995).
PEMBL; S80438; G1245776;
NON_TER
                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
MEDLINE; 98126445.
DODE C., WEIL D., LEVILLIERS J., CROZET F., CHAIB H., LEVI-ACOBAS F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Gaps
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EUMALACOSTRACA; EUCARIDA; DECAPODA; PLEOCYEMATA; BRACHYURA;
BRACHYRHYNCHA; GRAPSOIDEA; GECARCINIDAE; GECARCINUS.
                                                                                                                                                                                                                                   y Match 59.3%; Score 51; DB 5; Length 331; Local Similarity 54.5%; Pred. No. 2.40e+00; hes 6; Conservative 4; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       59.3%; Score 51; DB 5; Length 359; 54.5%; Pred. No. 2.40e+00; Ative 4; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                          01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                       331 AA; 36955 MW; 1CCB86D1 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           359 AA; 39873 MW; 862D6969 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                        359 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           449 AA.
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                                                                                                                                                                                                                                                                                                                                                                                              001944;
01-JUL-1997 (TREMBLREL. 04, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ALPHA-4-TUBULIN (FRAGMENT).
GECARCINUS LATERALIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATARRINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        larity 54.5%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
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                                                                                                                                                                                                331
                                                                                                                                                                                                                                                                                            172 NACFEPANOMV 182
                                                                                                                                                                                                                                                                                                               201 NACFEPANOMV 211
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                                                                                                                                                                                            331
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NON_TER
SEQUENCE
                                                                                                                                                                                                                                   Query Match
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SEQUENCE
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001944
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Q13748
Q13748;
                                                                                                                                                                                                                                                                  Matches
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01-JAN-1998 (TREMBLREL. 05, CREATED)
01-JAN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
01-JAN-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
ALPHA-TUBULIN.
BRACHTOANIO REPERIO (ZEBRAFISH) (ZEBRAFISH)
EUKARYOTA; METAZOA, CHORDATA; VERTEBRATA; ACTINOPTERVGII; NEOPTERYGII:
TELEOSTEI: BUTELEOSTEI: OSTRAIOPHYSI; CYPRINIFORMES; CYPRINOIDEA;
CYPRINIDAE; RASBORINAE; DANIO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
0; Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 59.3%; Score 51; DB 4; Length 449; Best Local Similarity 54.5%; Pred. No. 2.40e+00; Matches 6; Conservative 4; Mismatches 1; Indels
                                                                                                                                                                       (2)
SEQUENCE OF 352-449 FROM N.A.
SPONALDO M., SU L., LAWTON L.N., SOARES M.B.;
SUBMITTED (JUL-1993) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF00592; G2843123;
EMBL; L11645; G306451;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LIJORNEE FROM N.A.

BORMANN P., ZUMSTEG V.M., ROTH L.W.A., REINHARD E.;

BORMANN P., ZUMSTEG V.M., ROTH L.W.A., REINHARD E.;

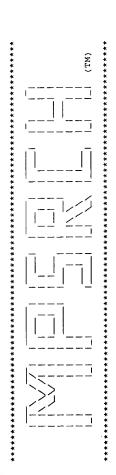
J. NEUROSCI. RES. 0.0-0(1997).

EMBL, PRO29250; G2599500; -.

PFAM, PF00091; tubulin; 1.

SEQUENCE 449 AA; 49953 MW; EOBEF20C CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE 449 AA; 49828 MW; 85360775 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  449 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  293 NACFEPANOMV 303
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1 KACLNPASPMV 11
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1 KACLNPASPMV 11
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Fri Feb 4 16:58:12 2000; MasPar time 3.49 Seconds 60.986 Million cell updates/sec Run on:

protein - protein database search, using Smith-Waterman algorithm

MPsrch_pp

Tabular output not generated.

>US-09-150-813-7 (1-10) from US09150813.pep 84 Description: Perfect Score:

1 CADPKQKWVQ 10 Sequence: PAM 150 Gap 15 Scoring table:

170751 seqs, 21266608 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

a-geneseq35 Database:

Mean 17.907; Variance 61.592; scale 0.291 Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Š.	01	01	01	01	01	01	01	.01	01	0.1	.01	.01	.01	.01	.01	.01
	Pred.	1.06e-01	1.06e-01	1.06e-0	1.06e-01	1.06e-0	1.06e-0	1.06e-0	1.06e-01	1.06e-0	1.06e-(1.06e-0	1.06e-0	1.06e-0	1.06e-01	1.06e-01	1.06e-01
	Description	Monocyte chemoattract	Monocyte chemoattract	Monocyte chemoattract	des(2-8) MCP-1.	Monocyte chemoattract	(28-Asp) MCP-1.	Sequence of bovine P6	Monocyte chemotactic	(3-Ala) MCP-1.	Peptide from human gl	Macrophage chemoattra	(24-Arg) MCP-1.	Monocyte chemotactic	MCF.	Sense MCP-1.	Mature human monocyte
	ID	W13598	W13599	W13597	R87678	W13596	R87675	R26580	W09374	R87677	P90292	W40175	R87676	R87680	R28660	R53398	W11131
	DB	24	24	24	14	24	14	Ŋ	20	14		30	14	14	Ŋ	10	21
	Match Length	99	67	68	69	69	16	16	16	76	97	16	97	76	16	16	76
* 0	Match	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Score	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84	84
+[11200	NO.	1	~	m	4	z,	9	7	80	σ	10	11	12	13	14	15	16

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Gaps

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Score 84; DB 24; Length 66; Pred. No. 1.06e-01; 0; Mismatches 0; Indels

Query Match 100.0%; Best Local Similarity 100.0%; Matches 10; Conservative

1.06e-01 1.06e-01 1.06e-01 1.06e-01 1.06e-01 1.06e-01 2.78e-01 2.78e-01 2.78e-01 2.78e-01 2.78e-01 2.78e-01 2.78e-01 2.78e-01 2.78e-01 2.78e-01 2.78e-01 2.78e-01 2.78e-01 5.71e-01 5.71e-01 5.71e-01 5.71e-01
Mature MCP-1. Human monocyte chemoa MCF. Sequence of P6 precur Sequence of P6 precur Macrophage chemoatra Chemoatracterate prote Droll3+ chemokine betal Bac 3 chemokine betal Bac 2 chemokine betal Bac 2 chemokine betal Bac 2 chemokine betal Bac 2 chemokine betal Bac 1 chemokine betal Bac 1 chemokine betal Bac 1 chemokine betal Human monocyte chemoa Monocyte chemoa Monocyte chemoa Monocyte chemoa Chuman chemokine betal Human monocyte chemoa Monocyte chemoa Chaman chemokine betal Human monocyte chemoa chemokine betal Human ochanine cx3C 395 Mouse neurotactin. Ectaxin chemoatiracta Amino acid sequence o Guinea pig eosinocyte Ct Pancreas expressed ch Chemoatractant prote Cytokine encoded by c
R86859 P953814 R26653 R265861 R265861 W420174 W22673 W22673 W22672 W22672 W22672 W22673 W22673 W22673 W22673 W22673 W22673 W22673 W26939 W2693
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ALIGNMENTS

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N'terminally truncated monocyte chemo:attractant protein-1 (MCP-1) -
lacks MCP-1 activity and inhibits receptor binding, useful as
lacks MCP-1 activity and inhibits receptor binding, useful as
anti-inflammatory agent
bisclosure: Page 5: 27pp; English.
The present sequence represents an analogue, which lacks the
chemoattractant protein-1 (MCP-1). The analogue, which lacks the
N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1
as it lacks MCP-1 biological activity and inhibits binding to a MCP-1
creceptor. The analogue is useful as an anti-inflammatory agent to block
the effects of MCP-1 which is an inflammatory mediator causing migration
of monocytes and other cells e.g. basophils and lymphocytes into
inflammatory diseases. G. arthritis, arteriosclerosis and several lung
diseases. The analogue competes more effectively with MCP-1 for binding
mCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably
with 75:1 for prior art mutant 7ND.
Sequence 67 AA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              doing J, Lewis I;
wPI: 97-165844/16.
N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) -
lacks MCP-1 activity and inhibits receptor binding, useful as
anti-inflammatory agent
Claim 7; Page 5: 27pp; English.
The present sequence represents an analogue, MCP-1 (9-76), of monocyte
chemoattractant protein-1 (MCP-1). The analogue, which lacks the
                                                                                                                                                               Monocyte chemoattractant protein analogue MCP-1 (11-76).
Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Gaps
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Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy; chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 84; DB 24; Length 67;
Pred. No. 1.06e-01;
0; Mismatches 0; Indels
                                                                                        .r 2
W13599 standard; peptide; 67 AA.
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Local Similarity 100.0%;
les 10; Conservative
                                                                                                                                            07-NOV-1997 (first entry)
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19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
(LEWI/) LEWIS I.
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19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
(LEWI/) LEWIS I.
                     42 cadpkqkwvq 51
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WPI; 97-165844/16.
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CA2152141-A.
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CA2152141-A.
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PER MOLINE By. Zanang YJ;

PER MOLINE By. Zanang YJ;

Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are
reapable of inhibiting the monocyte chemo-attractant activity of
endogenous MCP-1 and can be used to treat restenosis

Claim 4; Page 11; 22pp; English.

Claim 4; Page 11; 22pp; English.

Claim 4; Page 11; 22pp; English.

Composete chemoattractant protein-1 (MCP-1) derivatives are mutated such
that they inhibit the monocyte chemoattractant activity of endogenous

MCP-1, provided that the derivative has not been modified by the
that they inhibit the monocyte chemoattractant activity of endogenous

MCP-1, provided that the derivative has not been modified by the
that they inhibit the monocyte chemoattractant activity of endogenous

MCP-1, provided that the derivative has not been modified by the
that they inhibit the monocyte chemoattractant activity of endogenous

MCP-1, provided that the derivative has not been modified by the
substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg

DY Phe; (3) substitution of 3-Ryp by Ala; and/or (4) debetion of amino
acids 2-8. The present sequence is a specifically claimed human MCP-1

derivative based on the parent protein disclosed in Rollina; Molecular
and Cellular Biology, Vol. 9, No. 11, pp. 4687-4655, Nov. 1999.

The peptides can be used to prevent restenosis, e.g. in patients
undergoing coronary artery angioplasty.
N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammatory attes. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably with 75:1 for prior art mutant 7ND.
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monocyte chemoattractant protein; MCP-1; mutant; restenosis;
                                                                                                                                                                                                                                                                           Score 84; DB 24; Length 68; Pred. No. 1.06e-01;
                                                                                                                                                                                                                                                                                                                      0; Indels
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Pred. No. 1.06e-01;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                      0; Mismatches
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12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC.
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W13596 standard; peptide; 69 AA.
W13596;
07-NOV-1997 (first entry)
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WO9513295-A1.
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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 18:03:33 2000; MasPar time 5.07 Seconds 129.098 Million cell updates/sec MPsrch_pp

rabular output not generated.

Run on:

>US-09-150-813-72 (1-12) from US09150813.pep 82 Description: Perfect Score:

1 KACLNPASPIVK 12 Sequence:

PAM 150 Gap 15 Scoring table:

179066 seqs, 54579741 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

sptremb19 Database:

1:sp_archea 2:sp_bacteria 3:sp_fungi 4:sp_human 1:sp_invertebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle 9:sp_phage 10:sp_plant 11:sp_rodent 12:sp_unclassified 13:sp_vertebrate 14:sp_virus

Mean 23.018; Variance 24.711; scale 0.932 Statistics:

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Pred, No.			(7)	ω.	4	Η.	E.	-	Н	_		1.45e+00	1.45e+00	1.45e+00	KD Z			TLGLUT 2.50e+00			4.256+00
Description	PERMEABILITY FACTOR 2	GRO.	MELANOMA GROWIH STIMUL	SUP35 (FRAGMENT).	HYPOTHETICAL 11.8 KD P	ALPHA-TUBULIN (FRAGMEN	DNA-BINDING PROTEIN	DNA-BINDING PROTEIN.	MYELOBLAST KIAA0240 (F	PATCHED HOMOLOG (PTC).	PATCHED HOMOLOGUE	PATCHED PROTEIN.	PATCHED.	F15B9.7 PROTEIN.	HYPOTHETICAL 33.9	ORF11.	1.4-ALPHA-GLUCAN BRANC	3-HYDROXY-3-METHYLGLUT	TOTAL STREET	2	PTC1 (FRAGMENT).
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Query Match Length DB	99	103	59	614	115	377	380	546	983	1296	1434	1442	1447	2610	307	707	200	1000	CCOT	104	257
Query	82.9	78.0	75.6	68.3	64.6	62.2	62.2	62.2	22.2	62.2	62.2	62.2	20.0	0.00			0.1.0		0.10	59.8	59.8
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HYPOTHETICAL 30.0 KD P	ALPHA-TUBULIN ISOTYPE	ALPHA-4-TUBULIN (FRAGM	ALPHA TUBULIN (ALPHA-T	ALPHA-TUBULIN.	TUBULIN ALPHA CHAIN.		ı	ALPHA-2 TUBULIN.	ALPHA-1-TUBULIN.	ALPHA-TUBULIN.	ALPHA-TUBULIN.	GAG PRO POL POLYPROTEI	PR110.	PR160.	TYPE IIA PROCOLLAGEN (ALPHA-3-TUBULIN (FRAGM	HYPOTHETICAL 47.9 KD P	UNKNOWN FUNCTION.	HYPOTHETICAL 63.5 KD P	DSM 30040 CYCLOPROPANE	HYPOTHETICAL 70.7 KD P	CYCLOSPORIN SYNTHETASE	œ	GLYCOPROTEIN E.
065707	026047	001944	013748	042271	076659	094985	001942	094978	001941	026595	027122	083391	092804	056220	077753	001943	005591	046447	084354	046035	084657	009164	P75596	091334
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ALIGNMENTS

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228724 PRELIMINARY; PRT; 66 AA. 228724 DA. 228725 DA. 2287270 DA	IL, KAJIKAWA O., WONG V.A., MONGOVIN homologues and their expression in OKINES_CXC; 1.	Length 66; ; Indels TIE;	CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ATE) PDATE MALIA	ONG V	Len(0;) 0;	MMALI
; 66 AA. ED) SEQUENCE UPDATE) ANNOTATION UPDATE) TTEBRATA; MAMMALIA;	and their and their	BC7D CRC32; ; 68; DB 6; Lengtl No. 5.90e-05; Mismatches 0; I Mismatches U; I ; 103 AA. FED; SEQUENCE UPDATE; ANNOTATION UPDATE;	ATA; MA
PRT; CREATED) LAST SEQUE LAST ANNOT ENT). T).	CYTOKINES_CXC. CYTOKINES_CXC.	DAC4BC7D SCOIE 68; Pred. No. 2; Misms 2; Misms CREATED) LAST SEQU	ERTEBR
PRT CREAT LAST LAST MENT).	II, II homo OKIN	Score Pred. 2; 2; CREAI	IA;
r; PR 01, CREA 01, LAST 08, LAST (FRAGMENT) (RABBIT).	OKICO OKICO TE; R.B. GRO J. L.CYT	7102 MW; 82.9%; 81.8%; vative	IORDA
INARY IREL. IREL IREL IREL IREL IREL IREL IREL IREL	MAN R.B WHITE; UK MAN R.B bbit GR es."; es."; 343; SMALL_C	IN I	
PRELIMINARY; (TREMBLREL. 01, CR (TREMBLREL. 08, LA FACTOR 2 (FRAGMEN CUNICULUS (RABBIT) ETAZOA; CHORDATA;	(A) LEPORIDAE: FROM N.A. WA ZEALAND WHIT WA ZEALAND S.C. GOODMAN F R.; Of two rabbit of two rabbit 337-338(1994) 8933; 6455343; PSO0048; 118; 11.	\$ 66 AA, 7102 M \$ 2.9% \$ similarity \$1.8% \$ 9; Conservative LNPAAPMVK 53 : :	METAZOA;
P 996 (998 (LITY CGUS (MI	HA; I FEW ZI 951; MA.C. I.R.; J. Of I.337 EPSO	Sim. S. S. M. P. S.	
1 028724 028724 028724 01-NOV-1996 01-NOV-1998 01-NOV-1998 PERMEABILITY RPF2. EUKARYOTA; M	LAGOMORPHA: LEPOKIDAE; UKICIULAGUS. [10] SEQUENCE FROM N.A. STRAIN=NEW ZEALAND WHITE; MEDLINE; 95129899. JOHNSON M.C., GOODMAN R.B. II, KAJIKAWI MARTIN T.R.; "Cloning of two rabbit GRO homologues is alveolar macrophages."; GENE 151:337-338(1994). EMBL; L28933; G45543; FROMIE; PROMOTE; PROMOTE, SMALL_CYTOKINES_CXC; PROMI: PROMOTER. NON_TER. 110.	7 Ma Loc Loc hes 43 43 2 2 2 2 4667 1-Ju 11-Ju 11-Au SRO.	EUKARYOTA;
SOLL		SO SI OUGE, OUGE, BEST, MATCI DD OY OY AC O DI O DI OD	88

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ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; CAPRINAE; OVIS.
                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; AMPHIBIA; BATRACHIA; ANURA;
MESOBATRACHIA; PIPOIDEA; PIPIDAE; XENOPODINAE; XENOPUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIINE; 88329727.
KUSHNIROV V.V., TER-AVANESYAN M.D., TELCKOV M.V., SURGUCHOV A.P.,
                                                                                                                                         ;
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0
                                                                                                                                                                                                                                                                                                                                             EUKARYOTA; METAŻOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PERISSODACTYLA; EQUIDAE; EQUUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SMIRNOV V.N., INGE-VECHTOMOV S.G.;
"Nucleotide sequence of the SUP2 (SUP35) gene of Saccharomyces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
TISSUB-UNFERFILLIZED EGGS;
MEDLINE; 95393983.
MEDLINE; 95393983.
MEDLINE; 95393983.
MEDLINE; 95393983.
INGE-VECHTOMOV S.G., KISSELEV L.L., PHILIPPE M.;
"Termination of translation in eukaryotes is governed by two
                                                                                                              Length 103;
                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                               01-AUG-1998 (TREMBLREL. 07, CREATED)
01-AUG-1998 (TREMBLREL. 07, LAST SEQUENCE UPDATE)
01-AUG-1998 (TREMBLREL. 07, LAST ANNOTATION UPDATE)
MELANOMA GROWTH STIMULATORY ACTIVITY HOMOLOG (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Indels
                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-SKIN;
RIEDER S., CHECA-CORTES M.L., JOERG H., STRANZINGER G.;
SUBMITTED (PAR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AF053497; G3033533; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 59;
                         SEQUENCE FROM N.A.
YOSHIMURA T., MODI W.S.;
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U95814; G2735499; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                            Score 64; DB 6; Le
Pred. No. 7.29e-04;
2; Mismatches 0;
                                                                             103 AA; 10820 MW; C34945B7 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. 2.49e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 62; DB 6;
                                                                                                                                                                                                                                           59 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  614 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       XENOPUS LAEVIS (AFRICAN CLAWED FROG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CREATED)
                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                          78.0%;
80.0%;
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01-NOV-1996 (TREMBLREL, 01,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1996 (TREMBLREL. 01, 01-NOV-1998 (TREMBLREL. 08, SUP35 (FRAGMENT).
                                                                                         Query Match
Best Local Similarity 80.00,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              75.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 63.6%;
les 7; Conservative
                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
TISSUE=UNFERTILIZED EGGS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                    (HORSE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              :|||| :|:||
2 ACLNPASPIVK 12
                                                                                                                                                           81 CLNPAAPMVK 90
                                                                                                                                                                         3 CLNPASPIVK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               36 TCLNPEAPMVK 46
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENE 66:45-54(1988).
                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                  EQUUS CABALLUS
                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cerevisiae
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062764
062764;
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Q91855
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      FRASER C.M., NORRIS S.J., WEINSTOCK G.M., WHITE O., SUTTON G.G.,
DODSON R., GWINN M., HICKEY E.K., CLAYTON R., KETCHUM K.A.,
SODERGREN E., HARDHAM J.M., MCLEOD M.P., SALZEBERG S., PETERSON J.,
KHALAK H., RICHARDSON D., HOWELL J.K., CHIDAMBARAM M., UTTERBACK T.,
MCDONALD L., ARTIACH P., BOWMAN C., COTTON M.D., FUJII C., GARLAND S.,
VENTER J.C.,
VENTER J.C., SMITH H.O.,
                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
interacting polypeptide chain release factors, eRF1 and eRF3."; EMBO 0.14:4065-4072(1995).
EMBL: L37045; G976219; -.
PFAM: PF00009; GTP_ETU; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Complete Genome Sequence of Treponema pallidum, the Syphilis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                     Length 614;
                                                                                                             Score 56; DB 13; Length 614
Pred. No. 8.81e-02;
5; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      64.6%; Score 53; DB 2; Length 115; 58.3%; Pred. No. 4.83e-01; Ative 3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                         BACTERIA; SPIROCHAETALES; SPIROCHAETACEAE; TREPONEMA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUBMITTED (MAR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL, AE001198; G3322395; -. HYPOTHETICAL PROTEIN. SEQUENCE 115 AA; 11763 MW; 4616268A CRC32;
                                                                                                                                                                                                                                                                                              01-NOV-1998 (TREMBLREL. 08, CREATED)
01-NOV-1998 (TREMBLREL. 08, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                            SEQUENCE 614 AA; 67919 MW; 672740BD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EUKARYOTA; MICROSPORIDIA; NOSEMATIDAE; NOSEMA.
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                                                                                                                                                                                                                                                                      PRT;
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                                                                                                                                                                                                                                                                                                            01-NOV-1998 (TREMBLREL. 08, L. 01-NOV-1998 (TREMBLREL. 08, L. HYPOTHETICAL 11.8 KD PROTEIN.
                                                                                                                            Best Local Similarity 45.5%;
Matches 5; Conservative
                                                                                                                68.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAY-1997 (TREMBLREL. 03, 01-MAX-1997 (TREMBLREL. 03, 01-NOV-1998 (TREMBLREL. 08,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCIENCE 281:375-388(1998).
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                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                        20 PCLTPSAPLIK 30
                                                                                                                                                                                                    2 ACLNPASPIVK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                35 RACLVPASHFVR 46
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                                                                                                                                                                                                                                                                                                                                                                               TREPONEMA PALLIDUM
                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE; 98332770.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
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                                                                                                              Query Match
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083165
083165;
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P92126
P92126;
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MENDEL; 16183; NICta;2451;mn16183.
                        DNA-BINDING
SEQUENCE
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Q13463
Q13463;
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092514
092514;
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                                                                                                                                                                                                                                                                                                                                      Gaps
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EUPHYLLOPHYTES; SPERNATOPHYTA; MAGNOLIOPHYTA; EUDICOTYLEDONS;
ASTERIDAE; SOLANANAE; SOLANALES; SOLANACEAE; NICOTIANA.
                                                                    KEELING P.J., DOOLITILE W.F.;
"Alpha-tubulin from early-diverging eukaryotic lineages and the evolution of the tubulin family.";
WOL. BOLL. EVOL. 13:1297-1305(1996).
EMBL: U66907; G1755092; -..
EMBL: U66907; Lubulin; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 51; DB 10; Length 380;
Pred. No. 1.45e+00;
"**ma*rches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=XANTHI; TISSUE-STEM;
LAIBLE G., NATT E., SEGUIN A., DOERNER P.W., LAMB C.J.;
LAIBLE G., NATT E., SEGUIN A., DOERNER P.W., LAMB C.J.;
SUBMITTED (FEB-1944) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U06712: G555555; --
FRAM; PF00538; linker_histone; 1.
                                                                                                                                                                                                                                                                                      62.2%; Score 51; DB 5; Length 377; 63.6%; Pred. No. 1.45e+00;
                                                                                                                                                                                                                                                                                                                                      2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-JAN-1999 (TREMBLREL. 09, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
01-JAN-1999 (TREMBLREL. 09, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1
380 AA; 39388 MW; 60583FC0 CRC32;
                                                                                                                                                                                                                                                    377 AA; 41951 MW; 604D34D6 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT; 380 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NICOTIANA TABACUM (COMMON TOBACCO).
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TJADEN G., CORUZZI G.M.;
PLANT CELL 1:107-118 (1994).
EMBL; L26113; G456124; -
MENDEL; 16184; NICLA:2451; mn16184.
DNA-BINDING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1996 (TREMBLREL. 01, LAS:
01-JAN-1999 (TREMBLREL. 09, LAS:
DNA-BINDING PROTEIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   62.2%;
Similarity 54.5%;
6; Conservative
                                                                                                                                                                                                                                                                                                                      Local Similarity 63.6%;
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                                                                                                                                                                                                                                                                                                                                           7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                       377
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                                                                                                                                                                                                                                                                                                                                                                                                                 2 ACLNPASPIVK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                      SEQUENCE FROM N.A. STRAIN-ATCC 30860; MEDLINE; 97109817.
                                                                                                                                                                                                                  377
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SEQUENCE
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                                                                                                                                                                                                                                                                                                      Query Match
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                                                                                                                                                                                                                                                                                                                                               Matches
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CATARRHINI; HOMINIDAE; HOMO.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 96218118.
MEDLINE; 96218118.
GHIDAMDARAM A., CHRISTIANSEN J., WICKING C., ZAPHIROPOLOUS P.G., CHIDAMDARAM A., GERRARD B., VORECHOVSKY I., BALE A.E., TOFTGARD R., DEAN M., WAINWRIGHT B.,
A mammalian patched homolog is expressed in target tissues of sonic hedgehog and maps to a region associated with developmental abnormalities.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
TISSUE-BONE MARROW;
MAGASE I. SEXI N., ISHIKAWA K., OHIRA M., KAWARABAYASI Y., OHARA O.,
TANARA A., KOTANI H., MIYAJIWA N., NOMURA N.;
TANARA A., KOTANI H., MIYAJIWA N., NOMURA N.;
TRANARA A., FOTANI H., MIYAJIWA SEQUENCES OF UNIGENTIFIED HUMAN Genes. VI.
The coding sequences of 80 new genes (KIAA0201-KIAA0280) deduced by
analysis of cDNa clones from cell line KG-1 and brain.";
DNA RES. 3:321-329(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                  Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 51; DB 4; Length 983;
Pred. No. 1.45e+00;
1; Mismatches 2; Indels
                                                    Length 546;
                                           Match 62.2%; Score 51; DB 10; Length 546 Local Similarity 54.5%; Pred. No. 1.45e+00; es 6; Conservative 3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01, CREATED)
01, LAST SEQUENCE UPDATE)
08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                               01-FEB-1997 (TREMBLREL. 02, CREATED)
01-FEB-1997 (TREMBLREL. 02, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1296 AA; 144461 MW; 8E10F149 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     983 AA; 105052 MW; 7C466D59 CRC32;
546 AA; 57188 MW; 98DD1AF9 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT; 1296 AA.
                                                                                                                                                                                                                                                                                                             983 AA.
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                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                              MYELOBLAST KIAA0240 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ouery Match 62.2%;
Best Local Similarity 70.0%;
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01-NOV-1996 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
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HOMO SAPIENS (HUMAN).
                                                                                                                                                            514 KPCLNAESPAI 524
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                                                                                                                                                                                                             1 KACLNPASPIV 11
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01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             62.2%;
                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                   CAENORHABDITIS ELEGANS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NATURE 368:32-38(1994).
                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                             294 RPCLNPADP 302
                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                               1 KACLNPASP 9
                                                                                                                                                                                                                                                                                                                                F15B9.7 PROTEIN.
                                                                                                                                                                                                                                                                                             019482; 023218:
                                                                                     TISSUE-LUNG;
                                                                                                                                            syndrome.
                  PATCHED.
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Q19482
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                                                                                                                                      MUS WUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                             GOODRICH L.V., JOHNSON R.L., MILENKOVIC L., MCMAHON J.A., SCOTT M.P.;
"Conservation of the hedgehog/patched signaling pathway from files to
mice: induction of a mouse patched gene by Hedgehog.";
GENES DEV. 10:301-312(196).
EMBL; U46155; G1181885;
MGD; MGI:105373; PTCH.
        Gaps
                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MARIGO V., SCOTT M.P., JOHNSON R.L., GOODRICH L.V., TABIN C.;
CONSERVATION in hedgehog signaling: induction of a chicken patched
homolog by Sonic hedgehog in the developing limb.";
DEVELOPMENT 122:1225-1233(1996).
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; ARCHOSAURIA; AVES;
NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
                                                                                                                                                                                                                                                                          Score 51; DB 11; Length 1434;
Pred. No. 1.45e+00;
2; Mismatches 1; Indels (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 51; DB 13; Length 1442;
Pred. No. 1.45e+00.
       Indels
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2; Mismatches 1; Indels
                                                                                                       LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                      CREATED)
LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                      1434 AA; 159272 MW; 69A82E46 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 013635
013635;
01-NOV-1996 (TREMBLREL. 01, CREATED)
01-NOV-1996 (TREMBLREL. 01, LAST SEQUENCE UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      160576 MW; 4DA25B6D CRC32;
   2; Mismatches
                                                                            PRT; 1434 AA.
                                                                                                                                                                                                                                                                                                                                                                      PRT; 1442 AA.
                                                                                               CREATED)
                                                                                             01,
01,
08,
                                                                                                                                                                                                                                                                          62.2%;
ilarity 66.7%;
Conservative
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01,
08,
6; Conservative
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                                                                           PRELIMINARY;
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                                                                                         01-NOV-1996 (TREMBLREL.
                                                                                                                (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                      (TREMBLREL.
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01-NOV-1996 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                               01-NOV-1996 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
PATCHED PROTEIN.
                   143 RPCLNPADP 151
                                                                                                                                                                                                                                                                                  Local Similarity
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                                                                                                                                                                                                                                                                                                             280 RPCLNPADP 288
                                                                                                                       PATCHED HOMOLOGUE.
                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                        96176226
                                    1 KACLNPASP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE; 96205046.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             294 RPCLNPADP 302
                                                                                                                                                                                                                                                                                                                               1 KACLNPASP 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 KACLNPASP 9
                                                                                                     01-NOV-1996
                                                                                                             01-NOV-1998
                                                               LT 11
Q61115
Q61115;
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090693
Matches
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Matches
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HOMO SAPIENS (HUMAN).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
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RA MEDLINE: 94150718.

MILSON R., AINSCOUGH R., ANDERSON K., BAVNES C., BERKS M.,

BONFIELD J., BURTON J., CONBLL M., COPSET T., COOPER J., COULSON A.,

RA CRAXTON M., DEAR S., DU Z., DURBIN R., FAVELLO A., FULTON L.,

ANDONES M., KERSIAM J., KIRSTEN D., LAISTER N., JOHNSTON L.,

A JONES M., KERSIAM J., MENTENEN J., LAISTER N., JOHNSTON L.,

ARSONS J., PERCY C., RIFKEN L., ROOPRA A., SAUNDERS D., SHOWNKEEN R.,

A SMALDON N., SMITH A., SONNHAMMER E., STADSON J.,

THIERRY-MIEG J., THOMAS K., YAUDIN M., VAUGHAN K., WATENSTON J.,

RATSON A., WEINSTOCK L., WILKINSON-SPROAT J., WOHLDWAN P.;

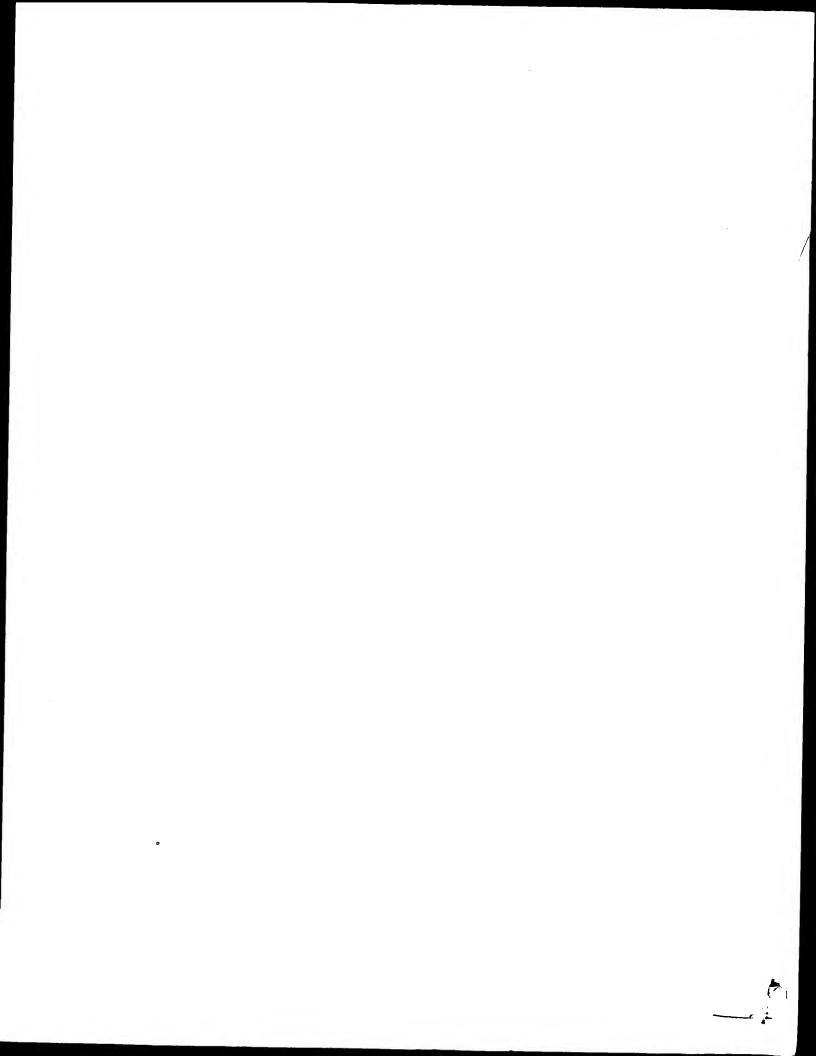
ELEGABLS.
                                                                                                                                                                                                                                              Human homolog of patched, a candidate gene for the basal cell nevus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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                                                                                                                                                MEDLINE; 96247324.

JOHNSON R.L., ROTHMAN A.L., XIE J., GOODRICH L.V., BARE J.W.,
BONTEAS J.M., QUINN A.G., MYERS R.M., COX D.R., EPSTEIN E.H. JR.,
SCOTT M.P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBMITTED (AUG-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUKARYOTA; METAZOA; NEMATODA; SECERNENTEA; RHABDITIA; RHABDITIDA;
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                                                                                                                                                                                                                                                                                                                                                                                                            Score 51; DB 4; Length 1447;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBMITTED (AUG-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                           SCIENCE 272:1668-1671(1996).
EMBL; U59464; G1381236; -.
SEQUENCE 1447 AA; 160559 MW; 6BD592C2 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. 1.45e+00;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CREATED)
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01-NOV-1998 (TREMBLREL. 08,
01-AUG-1998 (TREMBLREL. 07,
                                                                                                                                                                                                                                                                                                                                                                                                         62.2%;
66.7%;
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DB 5; Length 2610;

Score 51;

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01-JUN-1998 (TREMBLREL. 06, CREATED)
01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
01-JUN-1998 (TREMBLREL. 06, LAST ANNOTATION UPDATE)
HYPOTHETICAL 33.9 KD ZINC FINGER PROTEIN C14C4.06C IN CHROMOSOME I. SPAC14C4.06C.
SCHIZOSACHAROMYCES POMBE (FISSION YEAST).
EUKARYOTA: FUNGI: ASCOMBCOTA, ARCHIASCOMYCETES;
SCHIZOSACCHAROMYCETALES; SCHIZOSACCHAROMYCETACEAE;
SCHIZOSACCHAROMYCES.
                     Gaps
                                                                                                                                                                                                                                                                                                                                                                          [1]
STRAIN-972;
DEVLIN K., CHURCHER C.M., BARRELL B.G., RAJANDREAM M.A., WOOD V.;
STRAIN-972;
DEVLIN K., CHURCHER C.M., BARRELL B.G., RAJANDREAM M.A., WOOD V.;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
- SUBGELLULAR LOCATION: NUCLEAR (POTENTIAL).
EMBL; Z98596; E334264; -.
HYPOTHETICAL PROTEIN; NUCLEAR PROTEIN; DNA-BINDING; ZINC-FINGER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
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Best Local Similarity 50.0%; Pred. No. 1.45e+00;
Matches 5; Conservative 4; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          METAL-BINDING.
ZN_FING 184 199 C3H-TYPE.
SEQUENCE 307 AA; 33929 MW; 7B5BE6D8 CRC32;
                                                                                                                                                                   307 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Search completed: Fri Feb \,4\,\,18:04:29\,\,2000 Job time : 56 secs.
                                                                                                                                                                     PRT;
                                                                                                                                                                       PRELIMINARY;
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| KACLNPASPIV 11
                                                            59 PCLHPGOPII 68
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2 ACLNPASPIV 11
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013713
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The present sequence represents an analogue, MCP-1 (8-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the chemoattractant protein-1 (MCP-1). The analogue, which lacks the as I lacks MCP-1 biological activity and inhibits bliding to a MCP-1 creeptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably with 75:1 for prior art mutant 7ND. a 25:1 ratio or less, compared with 75:1 for prior art mutant 7ND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis claim 3; Page 11; 22pp; English (MCP-1) derivatives are mutated such monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-ryr by Leu and/or 30-arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino activi. 2-8 The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular
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Monocyte chemoattractant protein analogue MCP-1 (8-76).
Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy; chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                       N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) lacks MCP-1 activity and inhibits receptor binding, useful as
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0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (28-Asp) MCP-1.
monocyte chemoattractant protein; MCP-1; mutant; restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 84; DB 24; Length 69;
Pred. No. 1.06e-01;
0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R87675 standard; protein; 76 AA.
                                                                                                                                                                                                                                                                                                       anti-inflammatory agent
Claim 5; Page 5; 27pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity 100.0%;
Tes 10; Conserved
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-NOV-1994; U12874.
12-NOV-1993; US-152301
                                                                                                                                                           19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
(LEWI/) LEWIS I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rollins B, Zhang YJ;
WPI; 95-215051/28.
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                                                                                                                                                                                                                            Gong J, Lewis I;
WPI; 97-165844/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           disulfide_bond
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                                                                                                          sapiens.
                                                                                     lung disease
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                                                                                                                              CA2152141-A.
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Drug containing a bovine protein homologous to human MCP-1 - for treating inflammation, tumours, thrombosis, and immune reactions, also for diagnosis

Treating inflammation, tumours, thrombosis, and immune reactions, also for diagnosis

Tolaim !! Page 3; 6pp; German

Solaim !! Page 3; 6pp; German

Colaim !! Page 4; 6pp; German

Colaim !! P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                        Gaps
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28-0AN-1993 (first entry)
Seguence of bovine P6 protein.
Monocyte chemottractant; bovine P6-derivative; thrombosis; tumour; inflammation therapy.
and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989. The peptides can be used to prevent restenosis, e.g. in patients undergoing coronary artery angioplasty.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein; antisense; inhibition;
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Human; monocyte chemoattractant protein; antisense; inhibition
mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
vascular restenosis.
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Pred. No. 1.06e-01;
0; Mismatches 0; Indels
                                                                                                                                Score 84; DB 14; Length 76;
Pred. No. 1.06e-01;
0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31-JUL-1991; 125251.
31-JUL-1991; DE-125251.
(SCHA-) SCHAPER & BRUEMMER GMBH & CO KG.
Gramm W. Lins E;
WPI; 92-293438/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
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W09374 standard; Protein; 76 AA.
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Best Local Similarity 100.0%;
Matches 10; Conservative
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                                                                                                                                        Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 10; Conservative
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22-OCT-1992; 965678.
22-OCT-1992; US-965678.
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis claim 6; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg are: (1) substitution of 3-Asp by Ala; and/or (4) deletion of amino derivative based on the parent protein disclosed in Rollins, Molecular and Callular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

The peptides can be used to prevent restenosis, e.g. in patients
                                                                        Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -
useful for therapy or diagnosis of restenosis, etc.
Useful for therapy or diagnosis of restenosis, etc.

Disclosure: Column 13-14; 16pp; English.

This is the amino acid sequence of the human monocyte chemoattractant
protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
stimulator of monocyte chemotaxis and is produced by injured vascular
smooth cells thus attracting monocytes. This causes proliferation of
the injured area and release growth factor. This causes proliferation of
the vascular smooth cells resulting in restenosis. The gene sequence can
be used to generate antisense sequences e.g. 148093-7, which can be used
to inhibit in vitro MCP-1 prodn. by monounclear cells e.g. lymphocytes or
macrophages, or smooth muscle cells, esp. in order to prevent vascular
                                                                                                                                                                                                                                                                                                                                                               ó:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'note= "Asp in the native sequence is replaced by Ala"
                                                                                                                                                                                                                                                                                                                                                                Gaps
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0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            monocyte chemoattractant protein; MCP-1; mutant; restenosis;
                                                                                                                                                                                                                                                                                                                          Score 84; DB 20; Length 76;
Pred. No. 1.06e-01;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                          0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              undergoing coronary artery angioplasty.
Sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
27-MAY-1994; US-250958.
(UDMI) UNIV MICHIGAN.
KUNEL SL, LYLE LR, Strieter RM;
WPI: 96-505405/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R87677 standard; protein; 76 AA.
                                                                                                                                                                                                                                                                                                                        Match
Local Similarity 100.0%;
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Local Similarity 100.0%;
les 10; Conservative
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WPI; 95-215051/28.
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12-NOV-1993; US-1523
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                                                                                                                                                                                                                                                                                                                                                                                                     1 CADPKQKWVQ 10
                                                                                                                                                                                                                                                                                        76 AA;
                                                              N-PSDB; T48092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        disulfide_bond
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                angioplasty
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                                                                                                                                                                                                                                                                                          Sequence
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Disclosure; page 3; 46pp; English.
Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms. Sequence 76 AA;
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Macrophage chemoattractant peptide MCP; MCP-1; treatment; neoplasm; infection; human; monocyte receptor; chemotactic response; inflammation; monocyte infiltration.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence represents a monocyte chemoattractant peptide (MCP) designated GDCF-2. MCPs can be isolated from human glioma cell line U-105MG (e.g. present sequence) and peripheral blood mononuclear leukocytes. MCPs are used for the treatment of neoplasms and infections in humans. Short peptides derived from MCPs can be screened to identify chance that can bind to the monocyte receptor without stimulating a chamber of the mass of the period of the monocyte receptor without stimulating a inflammation associated with monocyte infiltration.
                                                                                                                                                                                                                                                                                                                                                                      New peptide with specific chemotactic activity for monocytes - isolated from glioma or leucocyte cells, useful for treating infections and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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APPELLA E, Leonard EJ, Robinson EA, Yoshimura T;
WPI: 98-129909/12.
Peptide with chemotactic activity for monocytes - from human monocytes or glioma cells, useful for treating infections and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
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Pred. No. 1.06e-01;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                           20-JUL-1989.
31-JAN-1989; US-30423.
31-JAN-1989; US-304234.
31-JAN-1989; US-304234.
XOSH) US Dept. of Health and Human.
YoShimura T; Robinson E; Appella E; Leonard E.
WPI; 89-263501/36.
                                                                                        cell line U-105MG.
                                                                                                                                                                                                      /note= "pyroglutamic acid"
                                      P90292;
17-JAN-1990 (first entry)
Peptide from human glioma cell line U-10
Glioma; leucocyte; chemotaxis; neoplasms.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "pyroglutamic acid"
                                                                                                                                                    Location/Qualifiers
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JT 10
P90292 standard; peptide; 76 AA.
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W40175 standard; Protein; 76 AA.
                                                                                                                                                                                         /label= OTHER
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Best Local Similarity 100.0%;
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31-JAN-1989; US-304234.
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                                                                                                                                                             modified_site
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                                                                                                                             Human.
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Score 84; DB 30; Length 76; Pred. No. 1.06e-01;

Query Match Best Local Similarity 100.0%;

Gaps

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                                                                                                                                         10;
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                                                                                                                                         Matches
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ပ္ပပ္ပင္တ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are Human monocyte chemo-attractant activity of capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis conversed to the protein of the conversed of the chemoattractant protein 1 (MCP-1) derivatives are mutated such concepts chemoattractant protein 1 (MCP-1) derivative of endogenous concepts that they inhibit the monocyte chemoattractant activity of endogenous concepts that they inhibit the monocyte chemoattractant activity of endogenous concepts of the they inhibit the monocyte chemoattractant activity of endogenous constitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations capable in Substitution of 28 Tyr by aspartate: (2) substitution of 24 Arg are: (1) substitution of 28 Tyr by aspartate: (2) substitution of 24 Arg are: (1) substitution of 3-Asp by Ala; and/or (4) deletion of amino caids 2-8. The present sequence is a specifically claimed human MCP-1 caids 2-8. The present sequence is a specifically claimed human MCP-1 and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

The peptides can be used to prevent restenosis, e.g. in patients cundergoing coronary artery angioplasty.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wound treatment using monocyte chemotactic factor - has potent therapeutic effect on skin wounds and ulcers
Disclosure; Page 12; Jappi Japanese.
The invention relates to a new remedy for curing wounds which, instead of comprising a growth factor, comprises a monocyte chemotactic activating factor (MCAF) or its variants or derivatives. The factor has
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
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11..36
12..52
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       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Monocyte chemotactic activating factor for use as wound remedy. monocyte chemotactic activating factor; MCAF; wound remedy.
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                                                                                                                                                                                                                                                                                   (24-Arg) MCP-1.
monocyte chemoattractant protein; MCP-1; mutant; restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 84; DB 14; Length 76; 100.0%; Pred. No. 1.06e-01; vative 0; Mismatches 0; Indels
       Indels
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          0; Mismatches
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(DAND ) DANA FARBER CANCER INST INC.
ROllins B, Zhang YJ;
WPI; 95-215051/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R87680 standard; protein; 76 AA.
                                                                                                                                                                                                       R87676 standard; protein; 76 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 100.0%;
Matches 10; Conservative
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                                                                                                                                                                                                                                                          21-FEB-1996 (first entry)
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13-SEP-1994; JO1512.
13-SEP-1993; JP-227385.
               10; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-MAY-1995.
07-NOV-1994; U12874.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matsushima K, Nar
WPI: 95-131181/17.
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potent effect on skin wounds and ulcers. The present sequence is human MCAF, the activity of which is exemplified as the new remedy. Sequence 76\ AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                An expression plasmid, pHMA83, for producing MCF(76) consisting of 76 amino acids was constructed. The prod. can be used for e.g. treating bacterial infectious diseases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1; radionuclide; vascular restenosis; alpha; beta; emitting isotope; diagnosis; monocytes; vascular injury.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         vascular restenosis or potential restenosis
Disclosure; Page 5; 42pp; English.
The sequences given in R53398-99 represent sense and antisense
monocyte chemotactic protein-1 (MCP-1) respectively. These
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E.coli strains
Claim 1; Page 48 + Page 36; 56pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Plasmid; monocyte chemotactic factor; MCF; translation; termination; terminator; initiation; ribosome binding site;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 84; DB 5; Loud. No. 1.06e-01; 0; Mismatches 0.
                                                                                                                                     Score 84; DB 14; 1 Pred. No. 1.06e-01;
                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-NOV-1992.
27-APR-1992; J00550.
09-MX-1991; JP-135950.
(DAIN ) PAINIPPON PHARM CO LTD.
FURUI T, MATSUO N, Yamada M, Yamagishi J;
WPI; 92-398864/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RBS; promoter; tryptophan; repressor. Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R53398 standard; Protein; 76 AA.
                                                                                                                                                                                                                                                                                                                                                                                                              R28660 standard; Protein; 76 AA.
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Best Local Similarity 100.0%;
Matches 10; Conservative
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Best Local Similarity 100.0%;
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                                                                                                                                                                                                Conservative
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22-OCT-1992; US-965678.
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CC oligonuclectides may be labelled with a radionuclide and use CC therapeutically for the treatment of vascular restenosis.

CC Radiolabelled antisense MCP-1 compounds may be constructed using high control of the compounds may be constructed using high compounds inactivate MCP-1 compounds. Antisense MCP-1 compounds inactivate MCP-1 or inhibit production of MCP-1 or compounds inactivate MCP-1 or inhibit production of MCP-1 so that cc monocytes are not attracted to the area of vascular injury and cc monocytes are not attracted to the area of vascular injury and cc proliferation of vascular cells is inhibited.

CC Proliferation of vascular cells is inhibited.
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Search completed: Fri Feb 4 16:58:32 2000 Job time : 20 secs.

52 cadpkqkwvq 61 ||||||||||| 1 CADPKQKWVQ 10

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skaudach compalition A

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My concyte chemoattractant protein analogue MCP-1 (8-76).

Wy receptor binding; anti inflammatory; basophil; inhibitor;

Wy deceptor binding; anti inflammatory; basophil; lymphocyte; allergy;

Wy chronic inflammatory disease; arthritis; arteriosclerosis;

No Sal52141-A.

PD 20-DEC-1995;

NO SAL52141-A.

PD 30-DEC-1995;

NO SAL52141-A.

PD 30-DEC-1996;

NO SAL52141-A.

NO SAL52141-A.

PD 30-DEC-1996;

NO SAL52141-A.

PD 30-DEC-1996;

NO SAL541-A.

PD 30-DEC-1996;

NO SAL541-A.

PD 30-DEC-1996;

NO SAL541-A.

PO SAL541-A.

PO
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Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis claim 3; Page 11; 22pp; English.

Claim 3; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Lea and/or 30-Arg by val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular 'note- "Tyr in the native sequence is replaced by Asp" 0; Gaps monocyte chemoattractant protein; MCP-1; mutant; restenosis; .06e-01; ... 0; Indels Pred. No. 1.06e-0 0; Mismatches 12-NOV-1993; US-152301. (DAN) DANA FARBER CANCER INST INC. ROLLINS B. Zhang YJ; WPI; 95-215051/28. Location/Qualifiers T 6 R87675 standard; protein; 76 AA. Query Match 100.0%; Best Local Similarity 100.0%; Matches 10; Conservative 21-FEB-1996 (first entry) 07-NOV-1994; U12874. 45 cadpkqkwvq 54 1 CADPKOKWVQ 10 disulfide_bond (28-Asp) MCP-1. disulfide_bond modified_site Homo sapiens. W09513295-A1. angioplasty. 18-MAY-1995 g ò

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Poly(A+)RNA from bull seminal vesicles was used to prepare a cDNA in the expression vector lambdd gill. 1.5 x 10(5) cDNA clones were screened with a polyclonal anti-P6 antiserum of monospecific immunoglobulin G and six positives were identified. The insert of a sultable cDNA clone, pH42, was cloned into pUC18 and sequenced. pH42 encodes the 11,114 Da precursor of P6. It is called Monocyte Chemoattractant (bMCP-1), which is a homologue of human (h)MCP-1. There is 72% overall AA sequence homology to hMCP-1 with the signal peptide showing 100% and the central region showing 89% homology.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                         28-JAN-1993 (first entry)
Sequence of bovine P6 protein.
Monocyte chemoattractant; bovine P6-derivative; thrombosis; tumour;
                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Drug containing a bovine protein homologous to human MCP-1 · for treating inflammation, tumours, thrombosis, and immune reactions, also for diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Monocyte chemotactic protein 1.

Human; monocyte chemoattractant protein; antisense; inhibition; mononuclear cell; lymphocyte; macrophage; smooth muscle cell; vascular restenosis.
and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989. The peptides can be used to prevent restenosis, e.g. in patients undergoing coronary artery angioplasty.
Sequence 76 AA,
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                                                                              Score 84; DB 14; Length 76;
Pred. No. 1.06e-01;
0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                         (SCHA-) SCHAPER & BRUENMER GMBH & CO KG.
Gramm W. Lins E;
WPI; 92-293438/36.
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W09374 standard; Protein; 76 AA.
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Best Local Similarity 100.0%;
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Best Local Similarity 100.0%;
Matches 10; Conservative
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22-OCT-1992; 965678.
22-OCT-1992; US-965678.
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31-JUL-1991; 125251.
31-JUL-1991; DE-125251.
                                                                                                                                                                                                                                                                                                                                  inflammation therapy.
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Gaps

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Score 84; DB 14; Length 76; Pred. No. 1.06e-01; 0; Mismatches 0; Indels

Query Match 100.0%; Best Local Similarity 100.0%; Matches 10; Conservative

and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989. The peptides can be used to prevent restenosis, e.g. in patients undergoing coronary artery angioplasty.

Sequence 76 AA;

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CompARTION > & and-cd

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That inflammatory agent

That inflammatory agent inflammatory agent to block

The analogue is useful as an anti-inflammatory agent to block

The analogue is useful as an inflammatory agent to block

The analogue of MCP-1 which is an inflammatory mediator causing migration

The analogue is useful as an inflammatory agent to block

The analogue of MCP-1 has been implicated in allergic and chronic

Inflammatory alseases e.g. arthritis, arteriosclerosis and several lung

Alseases. The analogue competes more effectively with MCP-1 for binding

MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably

Sequence 69 Ax;

Sequence 69 Ax;
Monocyte chemoattractant protein analogue MCP-1 (8-76).
Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                             N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) lacks MCP-1 activity and inhibits receptor binding, useful as
                                                                                                                                                                      19-JUN-1995; 152141,
19-JUN-1995; CA-152141,
(LEWIZ) LEWIS I.
                                                                                                                                                                                                                                                           Song J, Lewis I; WPI; 97-165844/16.
                                                                                                     lung disease.
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Query Match 100.0%; Best Local Similarity 100.0%; Matches 10; Conservative 45 cadpkgkwvg 54 1 CADPKOKWVQ 10 g õ

monocyte chemoattractant protein; MCP-1; mutant; restenosis; 07-NOV-1994; U12874. 12-NOV-1993; US-152301. (DAND) DANA FARBER CANCER INST INC. Location/Qualifiers .T 6 R87675 standard; protein; 76 AA. 21-FEB-1996 (first entry) Rollins B, Zhang YJ; WPI; 95-215051/28. disulfide_bond disulfide_bond (28-Asp) MCP-1 modified_site Homo sapiens. 18-MAY-1995. RESULT

Monocyte chemotactic protein 1.

Human; monocyte chemoattractant protein; antisense; inhibition;
mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
vascular restenosis. 'note- "encoded by codon CAG" note- "encoded by codon AUG" /note= "encoded by codon CAC" Location/Qualifiers W09374 standard; Protein; 76 AA. W09374; 21-MAR-1997 (first entry) 05-NOV-1996. 22-OCT-1992; 965678. 22-OCT-1992; US-965678. 1 CADPKQKWVQ 10 misc_difference 51 misc_difference l misc_difference Homo sapiens. US5571713-A. RESULT ö

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Claim 1; Pege 3; 6pp; German.
Poly(A+)RNA from bull seminal vesicles was used to prepare a cDNA in Poly(A+)RNA from bull seminal vesicles was used to prepare a cDNA in the expression vector lambda gtil. 1.5 x 10(5) cDNA clones were screened with a polyclonal anti-P6 antiserum of monospecific immunoglobulin G and Six positives were identified. The insert of a put a concess the 11,114 Da precursor of P6. It is called Monocyte Chemoattractant (bMCP-1), which is a homologue of human (h)MCP-1. There is 72% overall Ah sequence homology to hMCP-1 with the signal peptide showing 100% and the central region showing 89% homology.
                                                                                                                                                                                       28-JAN-1993 (first entry)
Sequence of bovine P6 protein.
Monocyte chemoattractant; bovine P6-derivative; thrombosis; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Drug containing a bovine protein homologous to human MCP-1 - for treating inflammation, tumours, thrombosis, and immune reactions, also for diagnosis
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Pred. No. 1.06e-01;
0; Mismatches 0; Indels
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31-VUL-1991; 125251.
32-VUL-1991; DE-125251.
(SCHA-) SCHAPER & BRUEMMER GMBH & CO KG.
                                                                                                                                                R26580 standard; Protein; 76 AA.
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Best Local Similarity 100.0%;
Matches 10; Conservative
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WPI; 92-293438/36.
52 cadpkqkwvq 61
                                            1 CADPKOKWVQ 10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis
Claim 3: Page 11: 22pp; English.
Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Pale; (3) substitution of 3-Asp by Ala; and/or (4) deletion of anino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollins, Molecular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "Tyr in the native sequence is replaced by Asp" 11..36
12..52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Gaps
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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

protein - protein database search, using Smith-Waterman algorithm MPsrch_pp

Fri Feb 4 16:59:22 2000; MasPar time 2.48 Seconds 114.038 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-7 (1-10) from US09150813.pep 84 1 CADPKQKWVQ 10 Title: Description: Perfect Score:

Sequence:

Scoring table:

77977 seqs, 28268293 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

swiss-prot37 1:swissprot Database:

Mean 24.651; Variance 31.983; scale 0.771 Statistics: Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Pred. No.	5.10e-07	5.10e-07	5.10e-07	5.10e-07	5.10e-07	8.92e-07	4.71e-06	2.43e - 05	2.07e-04	2.07e-04	2.07e-04	2.07e-04	2.07e-04	2.07e-04	5.95e-04	5.95e-04	1.00e-03						
Description	MONOCYTE CHEMOTACTIC P	EOTAXIN PRECURSOR (EOS	EOTAXIN PRECURSOR (EOS	EOTAXIN PRECURSOR (EOS	EOTAXIN PRECURSOR (EOS	MONOCYTE CHEMOTACTIC P	MONOCYTE CHEMOTACTIC P	MONOCYTE CHEMOTACTIC P	MACROPHAGE INFLAMMATOR	INTERLEUKIN-8 PRECURSO	INTERLEUKIN-8 PRECURSO	INTERLEUKIN-8 PRECURSO	INTERLEUKIN-8 PRECURSO	MONOCYTE CHEMOTACTIC P	MACROPHAGE INFLAMMATOR	MONOCYTE CHEMOTACTIC P	INTERLEUKIN-8 PRECURSO						
ID	MCP1_HUMAN	MCPA_BOVIN	MCP2_BOVIN	MCP1_CANFA	MCP1_RABIT	MCP1_PIG	MCP4_HUMAN	EOTA_CAVPO	EOTA_HUMAN	EOTA_RAT	EOTA_MOUSE	MCP3_HUMAN	MCP2_PIG	MCP1_CAVPO	MI1A RAT	IL8_SHEEP	IL8_RABIT	IL8_CANFA	IL8_PIG	MCP5_MOUSE	MIP4_HUMAN	MCP2_HUMAN	IL8 BOVIN
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Length DB	66	66	66	101	125	66	86	96	46	97	97	66	66	120	92	101	101	101	103	104	89	66	101
% Query Match	100.0	100.0	100.0	100.0	100.0	98.8	95.2	91.7	91.7	91.7	91.7	91.7	91.7	91.7	86.9	86.9	86.9	86.9	86.9	86.9	84.5	84.5	83.3
Score	84	84	84	84	84	83	80	77	77	77	77	77	77	77	73	73	73	73	73	73	7.1	7.1	7.0
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1.00e-03	1.68e - 03	1.68e - 03	4.70e-03	4.70e-03	4.70e-03	4.70e-03	4.70e-03	7.81e-03	7.81e-03	7.81e-03	1.29e-02	1.29e-02	2.13e-02	2.13e-02	2.13e - 02	2.13e - 02	3.50e-02	3.50e-02	3.50e-02	5.71e-02	9.30e-02
INTERLEUKIN-8 PRECURSO	MONOCYTE CHEMOTACTIC P	MONOCYTE CHEMOTACTIC P	STROMAL CELL-DERIVED F	STROMAL CELL-DERIVED F	STROMAL CELL-DERIVED F	MACROPHAGE INFLAMMATOR	INTERLEUKIN-8 PRECURSO	T-CELL SPECIFIC RANTES	MACROPHAGE INFLAMMATOR	T-CELL SPECIFIC RANTES	CHEMOKINE CC-1 PRECURS	CHEMOKINE CC-3 PRECURS	MACROPHAGE INFLAMMATOR	MACROPHAGE INFLAMMATOR	TONSILLAR LYMPHOCYTE L	MONOCYTE CHEMOTACTIC P	INTERLEUKIN-8 PRECURSO	INTERLEUKIN-8 PRECURSO	MONOCYTE CHEMOTACTIC P	LYMPHOTACTIN PRECURSOR	LYMPHOTACTIN PRECURSOR
IL8_CAVPO	MCPB_BOVIN	MCP1_MOUSE	SDF1 MOUSE	SDF1_FELCA	SDF1 HUMAN	MI3A HUMAN	IL8_HUMAN	SISD_MOUSE	MI1A_MOUSE	SISD_RAT	CCC1_HUMAN	CCC3_HUMAN	MI1B HUMAN	MI1A_HUMAN	MI10_HUMAN	MCP3 MOUSE	IL8 CERTO	ILB MACMU	MCP1 RAT	LTN_RAT	LTN_MOUSE
1	Н	Н	-	Н	Н	٦	Н	٦	Н	7	-	Н	Н	\vdash	٦	٦	Н	Н	Н	Н	Н
101	74	148	83	63	93	96	66	91	92	92	93	109	92	92	93	97	101	101	148	114	114
83.3	82.1	82.1	79.8	79.8	79.8	79.8	79.8	78.6	78.6	78.6	77.4	77.4	76.2	76.2	76.2	76.2	75.0	75.0	75.0	73.8	72.6
70	69	69	67	67	67	29	67	99	99	99	65	9	64	64	64	64	63	63	63	62	61
24	25	26	27	78	29	30	31	32	180	34	3.5	90	37	. ac	, 6 , 6	40	41	4.2	43	44	45

ALIGNMENTS

RA MEDLINE; 89165862. RA MEDLINE; 89165862. RA LARSEN C.G., OPPENHEIM J.J., MATSUSHIMA K.; RA LARSEN C.G., OPPENHEIM J.J., MATSUSHIMA K.; RT "CLOINING and Sequence of the CDNA for human monocyte chemotactic RT and activating factor (MARE)". RI BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989). RN [2] RN SEQUENCE FROM N.A. RA MEDLINE; 90097880. RT Protein."; RA POLLINS B.J., STIER P., ERNST T., WONG G.G.; RT PROTEIN."; RN MEDLINE; 901800 of the JE gene encodes a monocyte secretory RT PROTEIN."; RN MEDLINE; 9153605. RA SEQUENCE FROM N.A. RN SEQUENCE FROM N.A. RA LEONARD E.J.; RA SEQUENCE FROM N.A. RA LEONARD E.J.; RA LEONARD E.J.; RA SEQUENCE FROM N.A. RA LEONARD E.J.; RA SEQUENCE FROM N.A. RA SEQUENCE ROW N.A. REDLINE; 902904666. RA SHYY Y.J., LI Y.S., KOLATTUKUDY P.E.; RA STATUCTURE of human monocyte chemotactic protein gene and its RI SECUENCE ROW N.A. RA SEQUENCE ROW N.A. RA SHYY R. SECUENCE ROW N.A. RE RESULE RESULT SES. COMMUN. 169:346-351(1990).	SEQUENCE FROM N.A. MEDLINE; 89165862. FURUTANI Y., NOWINGA H., NOTAKE M., OYAMADA Y., FUKUI T., LARSEN C.G., OPPENHEIM J.J., MATSUSHIMA K.; "Cloning and sequencing of the cDNA for human monocyte chand activating factor (MCAF)."; BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).		AC P13500 (REL. 13, CREATED) DT 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE) DT 15-JUL-1998 (REL. 34, LAST SEQUENCE UPDATE) DF 15-JUL-1998 (REL. 36, LAST ANNOVATION UPDATE) DE MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC DE AND ACTIVATING FACTOR) (MCRAF) (MONOCYTE SECRETORY PROTEIN JE) DE (MONOCYTE CHEMOATTRACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE	RESULT 1 D MCP1_HUMAN STANDARD; PRT; 99 AA.
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US-09-150-813-7.rsp

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that inhibits MCP-1-mediated monocyte chemotaxis.";
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                                                                                                                                                                                       SEQUENCE FROM N.A.
91207938
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                                                                  chemoattractant protein-3.";
FEBS LETT. 395:277-282(1996)
-!-FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ATTI-TUMOR
ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOLD
ARTHRITIS OR ATHEROSCIEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
                                                                                                                                                                                                 -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
-1- PIM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET CELL SELECTIVITY: DELETION OF THE AMINO- TERMINAL RESIDUE CONVERTS IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT.
-1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MISSING: 90% REDUCTION IN ACTIVITY.
D-A: 90% REDUCTION IN ACTIVITY.
N-A: 50% REDUCTION IN ACTIVITY.
N-A: 50% REDUCTION IN ACTIVITY.
S-A: 40% REDUCTION IN ACTIVITY.
S-A: 40% REDUCTION IN ACTIVITY.
Y-D: LOSS OF ACTIVITY.
T-D: LOSS OF ACTIVITY.
D-A: 90% REDUCTION IN ACTIVITY.
T-L: 90% REDUCTION IN ACTIVITY.
T-L: 90% REDUCTION IN ACTIVITY.
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                                         KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.; "Structural characterization of a monomeric chemokine: monocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID.
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EMBL; M30816; G386961; JOINED.
EMBL; M31625; G386961; JOINED.
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G641145;
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1, 1MCA; 15-OCT-94.
158105;
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PIR; S03339; S03339.
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DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            !- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WEMPE F., EINSPANIER R., SCHEIT K.H.;
"Characterization by cDNA cloning of the mRNA of a new growth factor from bovine seminal plasma: acidic seminal fluid protein.";
BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
                               Gaps
                                                                                                                                                                                                                                                                                                                                           MEDLINE; 92096117.

WEMPE F., HENSCHEN A., SCHEIT K.H.;

Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1).";

DNA CELL BIOL. 10:671-679(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WEMPE F., KUHLMANN J.K., SCHEIT K.H.; "Characterization of the bovine monocyte chemoattractant protein-1
                                                                                                                                                                           01-DEC-1992 (REL. 24, LAST ANDODATE)
01-NOV-1995 (REL. 32, LAST ANNODATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN IA PRECURSOR (MCP-1A) (MCP-1) (ACIDIC BOOR WARDLES)
                                                                                                                                                                                                                                                      BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOYOIDEA; BOVIDAE; BOVINAE; BOS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
                             ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MONOCYTE CHEMOTACTIC PROTEIN 1A. PYRROLIDONE CARBOXYLIC ACID (BY
                             0; Indels
Score 84; DB 1; Length 99; Pred. No. 5.10e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BY SIMILARITY.
BY SIMILARITY.
C8F5821D CRC32;
                                                                                                                                                 99 AA.
                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY)
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PFAM; PF00048; i18; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           11114 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; L32659; G624394; -.
EMBL; M84602; G163395; -.
PIR; A39296; A39296.
PIR; A262336; JC2336.
PROSITE; PSO0472; SMALL_CYT
Query Match
Best Local Similarity 100.0%;
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C-C) (CHEMOKINE CC).
                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                       [2]
SEQUENCE FROM N.A.
TISSUE-SEMINAL PLASMA;
                                                                                                                                                                                                                                                                                                                                TISSUE-SEMINAL PLASMA;
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35
99 AA;
                                                           75 CADPKOKWVQ 84
                                                                            1 CADPKQKWVQ 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 92181448
                                                                                                                                                                                                                                                                                                       [1]
SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 94338337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NEUTROPHILS.
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MCPA_BOVIN
P28291;
01-r
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                                                                                                                                     RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                          CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
                                                                                                                                                                                                                                                                                                                              SECUENCE FROM N.A.
MEDLINE; 94114084.
WIGHDE F., HARES J., SCHEIT K.H.;
WIGHDE F., HARES J., SCHEIT B.H.;
DIA CELL BIOL. 13:1-8(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                       -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                             Gaps
                                                                                                                                                                                                                                                                       BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOVINAE; BOS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-0CT-1996 (REL. 34, CREATED)
01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-UL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOATTRACTANT PROTEIN-1).
                                                                                                                                                                                                                         MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY. MONOCYTE CHEMOTACTIC PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 99;
                             0; Indels
Length 99;
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Pred. No. 5.10e-07;
0; Mismatches 0;
Score 84; DB 1; L
Pred. No. 5.10e-07;
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                                                                                                                                                                             01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
                             0; Mismatches
                                                                                                                                                  99 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; 118; 1. HSSP; P80098; 1NCV.
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75
10900 MW;
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Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 10; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C-C) (CHEMOKINE CC).
                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         G544997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOKINE; CHEMOTAXIS; SIGNAL 1 2
                                                                                                                                                                                                                                                                                                                                                                                                                          CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 75 CADPKOKWVQ 84
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                                                           75 CADPKOKWVQ 84
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24
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MCP2_BOVIN
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DISULFID
SEQUENCE
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                                                                                                                                                                    009141;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                       NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYCOARDIUM.
MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE SEPERFUSED MYCOARDIUM.
SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
INDOCTION: BY THE ALBHA.
TISSUE SPECIFICITY: ENDOCHELIUM OF SMALL VEINS AND INTRAFASCICULAR VEINS, AND INFILTRATING LEUROCYTES.
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
CANIS FAMILIARIS (DOG).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
CARNIVORA; FISSIPEDIA; CANIDAE; CANIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
LAGOMORPHA; LEPORIDAE; ORYCTOLAGUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YOSHIWURA T., YUHKI N.;
"Neutrophil attractant/activation protein-1 and monocyte
chemoattractant protein-1 in rabbit. cDNA cloning and their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 84; DB 1; Length 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. 5.10e-07;
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LAST ANNOTATION UPDATE)
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BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; U29653; G1144186; --
PROSITE: PSO0472; SMALL_CYTOKINES_CC; 1.
PFAM; PFO0048; 118; 1.
HSSP; P13500; 1DON.
CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATO!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
MEDLINE; 91225489.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
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35 75 B
101 AA; 11121 MW;
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01-DEC-1992 (REL. 24, LAST SEQI
15-JUL-1998 (REL. 36, LAST ANN
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es 10; Conservative
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                                                                                                                                                                                                                                                                                                                                  C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             101
24
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P28292;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                    (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE, 9183284.
HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTIKE W., SCHEIT K.H.;
HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTIKE W., SCHEIT K.H.;
HOSANG K., KNOKE I., SERIES EXPRESS MONOCYPE CHEMOSITIANCE TO FOL
expression in spleen cells.";
J. IMMUNOL. 146:3483-3488(1991).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
                                                                                                              -1- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY)
-1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
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ARTIODACTYLA; SUIFORMES; SUINA; SUIDAE; SUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 84; DB 1; Length 125;
Pred. No. 5.10e-07;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FBAC9D27 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; 118; 1. HSSP; P13500; 1DON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POTENTIAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   59 BY
75 BY
40 PO
55 PO
112 PO
13776 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; M57440; G165470; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                     C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23
125
24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOKINE; CHEMOTAXIS;
SIGNAL 1 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           125 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           75 CADPKQKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUS SCROFA (PIG)
                                                                                    NEUTROPHILS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZACH O.R.F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MCP1_PIG
P42831;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           UGUCCIONI M., LOETSCHER P., FORSSMANN U., DEWALD B., LI H., LIMA S.H., LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
"Monocyte chemotactic protein 4 (MCP-4), a novel structural and functional analogue of MCP-3 and eotaxin.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N., GARCIA-ZEPEDA E., HAMID Q., MURPHY P.M., LUSTER A.D.; an ovel CC "Human monocyte chemoattractant protein (MCP)-4 is a novel CC chemokine with activities on monocytes, eosinophils, and basophils induced in allergic and nonallergic inflammation that signals through the CC chemokine receptors (CCR)-2 and -3.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE, 97341179.

BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N., BERKHOUT T.A., SARAU H.M., MARMANA J., FOLEY J.J., APPELBAUM E., REAPE T.J., BRANNER M., MARTHEWS J., O'DONNELL K., O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.; O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.; O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.; O'DONNELL K., GOORING, in vitro expression, and functional characterization of a novel human CC chemokine of the monocyte chemotactic protein (MCP) family (MCP-4) that binds and signals through the CC chemokine receptor 2B., J. BIOL. CHEM. 272:16404-16413(1997).
                                                                                                                                                                                                                                                                                                                                                              0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                          MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOPACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
CHEMOPATRACTANT PROTEIN 4) (CK-BETAIO) (NCC-1).
                                                                                                                                                                                                                                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                Length 99;
                                                                                                                                                                         CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                                                                 Score 83; DB 1; L. pred. No. 8.92e-07;
                                                                                                                                                                                                                                                                                             ECC3AFB4 CRC32;
                                                                                                                                                                                                                                                                                                                                DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98 AA.
                                                                                                                                                                                                                                                                                                                                                                    1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
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                                                                                                                                                                                                                                                             BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                               BY SIMILARITY
                                                                                                          EMBL; X79416; G872313; -. PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; il8; 1. usep: P13500; lDON.
                                                                                                                                                                                                                                                SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
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                                                                                                                                                                                                                                                                                                                                                   Pred.
                                                                                                                                                                                                                                                                                                   99 AA; 10976 MW;
                                                                                                                                                                                                                                                                                                                                   98.88;
                                                                                                                                                                                                                                                                                                                                                     90.08;
                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                            EMBL; Z48479; G683717; -. EMBL; X79416; G872313; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SCYA13 OR MCP4 OR NCC1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HOMO SAPIENS (HUMAN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=HEART;
MEDLINE; 97113354.
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                                                                                                                                                                                                                                                                                                                                                                                                        75 CAEPKOKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CADPKOKWVO 10
                                                                                                                                                                                                                                                                  34
35
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MCP4_HUMAN
                                                                                                                                                                                                                                                                      DISULFID
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                                                                                                                                                                                                     SIGNAL
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                                                                                                                                                                                                                                                                                                                                                    -i- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND (FNPQGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE. (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                  POWER C.A., METER A., RISON S.C.G., GUTE-COULIN F., WELLS T.N.C.;
SUBMITTED (DEC-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-1- FUNCTION: CERMOTACTIC FACTOR THAT ATTRACTE MONOCYTES, LYMPHOCYTES,
-1- FUNCTION: CERMOTACTIC FACTOR THAT ATTRACTES MONOCYTES, LYMPHOCYTES,
-1- FUNCTION: DECINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CCRAB AND CRAS RECEPTORS. PLAYS A ROLE IN THE ACCUMILATION OF
MAY BE INVOLYED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
WALL DURANG THE DISEASE PROCESS OF ARTHEROSCIEROSIS. MAY PLAY A
ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MONOCYTE CHEMOTACTIC PROTEIN 4.
PYRROLIDONE CARBOXYLIC ACID.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 80; DB 1; Length 98;
Pred. No. 4.71e-06;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PETA CAVPO STANDARD; PRT; 96 AA. P80325; 01-JUN-1994 (REL. 29, CREATED) 01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE) EDTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
                     DANTE M., GIBSON A.;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DF52F6EC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL, AC002482; G2340091; --
EMBL, X98306; E248571; --
MIM; 601391; --
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23
98
M 24
24
58
58
74
29
10986 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCYAII.
CAVIA PORCELLUS (GUINEA PIG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    95.2%;
ilarity 90.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; U46767; G1732123; -.
                                                                                                                                                                                                                                                                                                                                                                                                                   C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PFAM; PF00048; 118; 1.
HSSP; P13500; 1DOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98 AA;
                                                                    SEQUENCE FROM N.A.
            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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                           DANTE
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                                                                                  ROTHENBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.; "Constitutive and allergen-induced expression of ectaxin mRNA in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                    -i- TISSUE SPECIFICITY: LUNG:
-i- PTM: O-GLYCOSTLATED (PROBABLE).
-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                       MEDLINE: 95091818.
JOSE P-J. ADCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKWAN N.,
WELLS T.C., WILLIAMS T.J., POWER C.J.,
"Ectaxin: cloning of an eosinophil chemoattractant cytokine and
increased mRNA expression in allergen-challenged guinea-pig lungs.";
BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
                                                                                                                                                                                                                                                                                                  MEDLINE; 94157409
JOSE P.J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
MORBEL R., TOTIY N.F., TRUONG O., HSUAN J.J., WILLIAMS T.J.;
Guinea pig model of allergic airways inflammation.";
J. EXP. MED. 179:881-887(1994).

I. FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
FRATURE OF ALLERGIC INFLAMMATORY REACTIONS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; HYSTRICOGNATHI; CAVIIDAE; CAVIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
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Pred. No. 2.43e-05;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PEAM; PF00048; 118; 1. HSSP; P13500; 1MCA.
BOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             POTENTIAL.
D -> G (IN REF. 2).
DD28C7E5 CRC32;
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SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ECTA_HUMAN STANDARD; PRT; 97 AA. P51671; P50877; 092490; 092491; 01-0CT-1996 (REL. 34, CREATED) 01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EOTAXIN.
                                                                                                                            EXP. MED. 181:1211-1216(1995).
                                                                                                                                                                                                                                                                                            STRAIN-HARTLEY; TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10753 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   90.06;
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                                         SEQUENCE FROM N.A.
                                                                          95173589.
                                                                                                                                                           SEQUENCE FROM N.A. MEDLINE; 95091818.
                                                                                                                                                                                                                                                                           SEÓUENCE OF 24-96.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          72 CADPKKKWVQ 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 CADPROKWVO 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         96 AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31
32
93
88
                                                           TISSUE=LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
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PONATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N., SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,
                                                                                                                                        LUSTER A.D.;
"Human eotaxin is a specific chemoattractant for eosinophil cells and
provides a new mechanism to explain tissue eosinophilia.";
NAT. MED. 2:449-456(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 97312708.
GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N.,
MORTON C.C., LUSTER A.D.;
"Genomic organization, complete sequence, and chromosomal location of
the gene for human ectaxin (SCYAII), an ecsinophil-specific CC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMRIELS J., SCHLUETER C., RICHTER E., NOSO N., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.;
"Human dermal fibroblasts express ectaxin: molecular cloning, mRNA expression, and identification of ectaxin sequence variants.";
BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
                                                                                                                                                                                                                                                                   MACKAY C.R.;
"Cloning of the human eosinophil chemoattractant, eotaxin.
Expression, receptor binding, and functional properties suggest a mechanism for the selective recruitment of eosinophils.";
J. CLIN. INVEST. 97:604-612(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genomic organization, sequence, and transcriptional regulation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 97445071.
HEIN H., SCHLUETER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
                                                                                                                                                                                                                                                                                                                                                                                              KITCHURA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIERE C., TIFFANY H.L., MURPHY P.M., YOSHIE O.; "Molecular cloning of human ectaxin, an eosinophil-selective CC chemokine, and identification of a specific eosinophil ectaxin receptor, CC chemokine receptor 3.";
                                       HOMO SAPIENS (HUMAN).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
                                                                                                                          GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OWNBEY T.R., LEDER P.,
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the human ectaxin gene.";
BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -!- SUBCELLULAR LOCATION: EXTRACELLULAR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BIOL. CHEM. 271:7725-7736(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENOMICS 41:471-476(1997).
                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
TISSUE=SMALL INTESTINE;
MEDLINE; 96205964.
                                                                                                                                                                                                              SEQUENCE FROM N.A.
MEDLINE; 96189937.
                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 96374440.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRUCTURE BY NMR.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE=LUNG
                                                                                                              MEDLINE;
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EOTA_MOUSE
P48298;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARBOHYD
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                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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-!- INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION)
15-JUL-1998 (REL. 36, LAST
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Pred. No. 2.43e-05;
...matches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL; INFLAMMATORY RESPONSE; POLYMORPHISM; 3D-STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
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A -> T (IN CLONE 53).
R -> S (IN CLONE 34).
K -> R (IN CLONE 54).
, 6COF3D98 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EOTAXIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10732 MW;
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Best Local Similarity 90.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   269291; E221070; -... 275668; E251275; -... 275669; E251258; -... U46572; G2088509; -... 292709; E329504; -...
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                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; U46573; G1280141; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             U34780; G1185440; ... D49372; G1552241; -..
                                                                                                                                     C-C) (CHEMOKINE CC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2EOT; 11-NOV-98.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             73 CADPKKKWVQ 82
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MEDLINE: 96158746.
GONZALO J.-A. JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
GONZALO J.-A., JIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPF M.,
GUTIERREZ-RAMOS J.-C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 PERSONAL 14 *: 1-14(13) O).

-!- PUNCTION: IN RESERVE TO THE PRESENCE OF ALLERGENS, THIS PROTIENT
DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS (A PROMINENT
ERATURE OF ALLERGIC INFLAMMATORY REACTIONS), BUT NOT
ELAMPHOCYTES, MACROPHAGES OR NEUTROPHILS.

-!- SUBCELLULAR LOCATION: EXTRACELLULAR.

-!- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.

-!- TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS.

-!- TISSUE SPECIFICITY: SPLEEN, KIDNEY.

-!- INDUCTION: BY INTERFENON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).

-!- PTM: O-GLYCOSYLATED (PROBABLE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ROTHENBERG M.E., LUSTER A.D., LEDER P.;
"Murine ectaxin: an eosinophil chemoattractant inducible in endothelial cells and in interleukin 4-induced tumor suppression."; PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Mouse eotaxin expression parallels eosinophil accumulation during
lung allergic inflammation but it is not restricted to a Th2-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
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RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
0
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                                                                                                                                                                                                                                                                                                                                                                                                                      EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-FEB-1996 (REL. 33, CREATED)
01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
EQTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05B4ED45 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 77; DB 1; L4
Pred. No. 2.43e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                    PROSITE: PSO0472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P80098; 1NCV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10851 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          91.7%;
90.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                      EMBL; Y08358; E274141; -. EMBL; U96637; G2098785; _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73 CADPKKKWVQ 82
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                                                                                                                                                                                                                                                                                                                                                                        ó;
 -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OPDENAKKER G., FITEN P., NYS G., FROYEN G., VAN ROY N., SPELEMAN F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUZUN P., MAGAZIN M., MILOUX B., MINTY C., RAMOND P., VITA N., LUPKER J., SHIRE D., FERRARA P., CAPUT D.; Molecular cloning of the MCP-3 chemokine gene and regulation of its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OPDENAKKER G., FROYEN G., FILEN P., PROOST P., VAN DAMME J., "Human monocyte chemotactic protein-3 (MCP-3): molecular cloning of the CDNA and comparison with other chemokines.", BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Title human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCIAT OR MCP3.
HOMO SAPIENS (HUMAN),
BURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-DEC-1992 (REL. 24, CREATED)
01-DEC-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                  Score 77; DB 1; Length 97;
Pred. No. 2.43e-05;
0; Mismatches 1; Indels
                                                                                                                                                                                                                     EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.
                                                                                                                                                                                                                                                                   EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
F85A96BC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99 AA.
                                                                                                                                        EMBL; U26426; G995911; --
EMBL; U40672; G1113937; --
MGD; MGI:103576; SCYA11, --
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHEMOATTRACTANT PROTEIN 3) (NC28).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOKINE NETW. 4:99-110(1993).
                                                                                                                                                                                                                                                                                                      97 AA; 10893 MW;
                                                                                                                                                                                                                                                                                                                                 91.78;
90.08;
                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENOMICS 21:403-408(1994).
                                                                                                                                                                                                                                                     23
97
57
                                                                                                                                                                                                                                     INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                              P80098; 1NCV
                                                                                                                                                                                                                                                                                                                                                                             73 CADPKKKWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                                       1 CADPROKWVQ 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEÓUENCE FROM N.A.
MEDLINE; 94375065.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             [4]
SEQUENCE OF 30-99.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         MCP3_HUMAN
                                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                            DISULFID
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                           VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G., "Structural and functional identification of two human, tumor-derived monocyte chemotactic proteins (MCP-2 and MCP-3) belonging to the
                                                                                                                                                                                                                                                                                                                                                                                      -1- PTM: O-C. CONTROLL OF THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                  EDOCHERICSERY 36,4412-4422(1997).

-1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
                                                                                                                                                                                                                                                               "Determination of the three-dimensional structure of CC chemokine monocyte chemoattractant protein 3 by 1H two-dimensional NMR
                                                                                                                                                                                                                                              MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON "Determination of the three-dimensional structure of CC chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                           KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D., "Structural characterization of a monomeric chemokine: monocyte chemoattractant protein-3."; FEBS LETT. 395:277-282(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MONOCYTE CHEMOTACTIC PROTEIN 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 77; DB 1; Length yy;
Pred. No. 2.43e-05;
'''^anatrhes 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PYRROLIDONE CARBOXYLIC ACID.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           T -> K (IN REF. 4).
MISSING (IN REF. 4).
7502E19C CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PSÓ0472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; X72308; G313708; ALT_INIT.
EMBL; X72309; -; NOT_ANNOTATED_CDS.
EMBL; X71087; G288399; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFLAMMATORY RESPONSE; 3D-STRUCTURE.
                                                                                                               STRUCTURE BY NMR, AND SUBUNIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; X71087; G288398; ALT_INIT.
EMBL; X71087; G288397; ALT_INIT.
                                                                                     EXP. MED. 176:59-65(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       11200 MW;
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 TISSUE=OSTEOSARCOMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PIR; JC1478; JC1478
PIR; S32222.
S32222.
PIR; A54678; A54678.
PDB; INCV; 15-OCT-97.
PROSITE; PS00472; SMAT;
                                                                                                                                                                                                                                                                                                                                                                            -! - SUBUNIT: MONOMER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PFAM; PF00048; 118;
CYTOKINE; CHEMOTAXI
                                                                                                                                                                                                                                MEDLINE; 97263733
                                                                                                                                                                                                                   STRUCTURE BY NMR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99 AA;
                                                                                                                                                                                                                                                                                         spectroscopy.
                                                                                                                             MEDLINE;
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                                                                                                                                                                         "POCTOTE NILVEAL CELLS EXPRESS MODOCYTE CHEMOALTRACTANT Protein-2 (MCP-2): analysis by CDNA cloning and northern analysis."; (MCP-2): analysis by CDNA cloning 205:148-153(1994).

-i. FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
                                                                                                                                                                                                                                -i- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                       CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "CDNA cloning of guinea pig monocyte chemoattractant protein-1 and
                                                                                                                                                     HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTIKE W.W., SCHEIT K.K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAVIA PORCELLUS (GUINEA PIG).
ETRARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; HYSTRICOGNATHI; CAVIIDAE; CAVIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 2.
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                       SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; SUIFORMES; SUINA; SUIDAE; SUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1995 (REL. 32, LAST SECUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
                              01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 77; DB 1; Le pred. No. 2.43e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARIIY.
BY SIMILARIIY.
BY SIMILARIIY.
B7620BCF CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT; 120 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pred. No. 2.43e-
0; Mismatches
       99 AA.
                                                                                                                                                                                                                                                                                                                                                                         PROSITE; PSO0472; SMALL_CYTOKINES_CC: 1.
PFAM: PPO0048: 118: 1.
HSSP; P80098; 1NCV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY)
         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1995 (REL. 32, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99 AA; 10903 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CHEMOATTRACTANT PROTEIN-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               91.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         larity 90.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN-Z; TISSUE-SPLEEN; MEDLINE; 93267104.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                   EMBL; 248480; G683719; -
PROSITE; PS00472; SMALL
                                                                                                                                                                                                                                                           C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                             23
24
24
           STANDARD;
                                                                                                                                                                                                                            CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          75 CADPQQKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CADPKOKWVQ 10
                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YOSHIMURA I.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MCP1_CAVPO
Q08782;
                                                                                     SCYAB OR MCP2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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              MCP2_PIG
                                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL
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NAKAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
NAKAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
NOTACHALHE-induced neutrophil chemoattractant (CINC)-2 alpha, a novel
member of rat GRO/CINCs, is a predominant chemokine produced by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SHI M.M., GODIESKI J.J., PAULAUSKIS J.D.;
"Molecular Cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar macrophages.";
BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
                                                                                 -:- SUBUNIT: MONOMER OR HOMODIMER: IN EQUILIBRIUM (BY SIMILARITY).
-:- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SHANLEY T.P., SCHWAL H., FRIEDL H.P., JONES M.L., WARD P.A.; "Role of macrophage inflammatory protein-1 alpha (MIP-1 alpha) in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CYIOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-0CT-1996 (REL. 34, CREATED)
01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
SCYA3 OR MIP1A.
             J. IMMUNOL. 150:5025-5032(1993).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EUKARYOTA; METAZOA; CHÓRDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 77; DB 1; Lo
Pred. No. 2.43e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       POTENTIAL.
22FAD257 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PSO0472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P80098; 1NCV.
expression of the recombinant protein.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ite lung injury in rats.";
IMMUNOL. 154:4793-4802(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=LONG EVANS; TISSUE=LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13741 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   91.78;
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MEDLINE; 95298037.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RATTUS NORVEGICUS (RAT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; L04985; G349821; -.
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34
97
120 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-WISTAR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MI1A_RAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
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lipopolysaccharide-stimulated rat macrophages in culture.";
BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
-! FUNCTION: MONORINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
HAS CHEMOTACTIC ACTIVITY FOR MONOCYTES, NEUTROPHILS, EOSINOPHILS,
PRODUCTION, NEUTROPHIL RECRUIPMENT AND SUBSEQUENT LUNG INTA ALPHA
MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
ADHESION NOLECLES REQUIRED FOR LUNG THE ACROPHAGE
ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLUX. THIS PROTEIN
                                                                                                                                                        INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                          MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
BY SIMILARITY.
A -> T (IN REF. 2).
C -> W (IN REF. 2 AND 3).
F48CF89F CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Indels
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Pred. No. 2.07e-04;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                       EMBL; U22414; G790633; -.
BMBL; U06435; G459150; -.
PROSITE; PS000475; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; i18; 1.
HSSP; P13236; 1HUN;
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92 M
57 B
73 B
6 6
57
10335 MW;
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Local Similarity 80.0%;
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Search completed: Fri Feb 4 16:59:28 2000 Job time : 6 secs.

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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch_pp protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 16:58:49 2000; MasPar time 3.53 Seconds 113.540 Million cell updates/sec

Tabular output not generated.

>US-09-150-813-7 (1-10) from US09150813.pep 84 1 CADPKQKWVQ 10

Description: Perfect Score: Sequence:

PAM 150 Gap 15 Scoring table:

122810 seqs, 40068593 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

pir60 1:pir1 2:pir2 3:pir3 4:pir4 Database:

Mean 23.976; Variance 35.473; scale 0.676 Statistics:

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Pred. No.	7.50e-06 7.50e-06 7.50e-06 7.50e-06 2.34e-04 2.34e-04 2.34e-04 2.34e-04 1.58e-03 1.58e-03 1.58e-03 1.58e-03 1.58e-03 1.58e-03 1.58e-03 1.58e-03 1.58e-03 1.58e-03 1.58e-03 1.58e-03
Description	monocyte chemoattract monocyte chemoattract monocyte chemoattract ectaxin precursor : q ectaxin precursor : r monocyte chemoattract monocyte chemoattract monocyte chemoattract monocyte chemoattract monocyte chemoattract monocyte chemoattract ectaxin precursor : r monocyte chemoattract interleukin-8 - abep interleukin-8 - sheep
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ALIGNMENTS

A60299 #type complete monocyte chemoatractant protein 1 precursor - human monocyte chemoatractant protein 1; MCAF; GDCF-1; glioma-derived monocyte chemotactic factor 1; monocyte secretory WCP-1; monocyte chemotactic factor 1; monocyte secretory protein; tumor-derived chemotactic factor 2 glioma-derived chemotactic factor 2 (GDCF-2) #formal_name Homo sapiens #common_name man 20-Reb-1993 #sequence_revision 20-Feb-1993 #text_change 20-Mar.1998 A35474; A33476; S03339; I51841; A60299; A32300; A32396;		ERENCE A33476 #authors Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G. #authors Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G. #aloural Mol. Cell. Biol. (1989) 9:4687-4695 #title protein. #cross-references MulD:90097880 #accession A33476 ##molecule_type mRN ##molecule_type mRN ##residues #cross-references GB.M31625; GB:M31625; NID:9188701; #pricss-references GB.M33886; GB:M31625; GB:M31626; NID:9188701;	Yoshimur M.I.: FEBS Let Human mc Conpet Compet rences MUII S03339 1e_type mR
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                                                                                                                                                                                                                                                                                                       A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and activating factor (MCP-1/MCAF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #authors Furutani, Y.; Nomura, H.; Notake, M.; Oyamada, Y.; Fukui, T.; Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K. Biochem. Biophys. Res. Commun. (1989) 159:249-255 Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           #journal Biochem Biophys. Res. Commun. (1990) 167:904-909 Identification of the monocytes chemotactic protein from human N-terminally processed form.
                                                                                                                                                                                                                                            Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill, J.F.; Kolattukudy, P.E.
Mol. Cell. Biochem. (1993) 126:61-68
The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.; Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E. Proc. Natl. Acad. Sci. U.S.A. (1989) 86.1850-1854 Complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van
                                    #authors Yoshimura, T.; Leonard, E.J.
#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references MUID:92095166
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Chinese J. Microbiol. Immunol. (1994) 14:29-32
The PCR, cloning and sequencing of human monocyte
                                                                                                                                           preliminary; translated from GB/EMBL/DDBJ
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##cross-references GB:MZ4545; NID:9187434; PID:9307163
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#cross-references GB:S69738; NID:9545464; PID:9545465
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##experimental_source glioma cell line U-105MG
IS1841
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##residues 'X',25-99 ##label ROB
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#domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein 1 #status
experimental #label MAT\
#product monocyte chemoattractant protein 1, short form
#status experimental #label MATY
#modified_site pyrrolidone carboxylic acid (Gln) (in
mature form) #status experimental\
#binding_site carbohydrate (Asn) (covalent) #status
predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               monocyte chemoattractant protein-1 - bovine
#formal_name Bos primigenius indicus #common_name zebu cattle
20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
                                                                                                                                  #map_position 17q11.2-17q12
CLASSIFICATION #superfamily mcrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation; pyroglutamic acid
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Blochem. Biophys. Res. Commun. (1994) 202:1272-1279
Characterization of the bovine monocyte chemoattractant
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#Superfamily macrophage inflammatory protein
#length 99 #molecular-weight 11114 #checksum 9401
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Pred. No. 7.50e-06;
0; Mismatches 0; Indels
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chemoattractant protein-1 (MCP-1) gene.
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DNA Cell Biol. (1991) 10:671-679
                               ##molecule_type mRNA
##residues 24-28,'Q',30-99 ##label YEQ
                                                                                                                        ##cross-references GDB:125279; OMIM:158105
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#cross-references MUID:95173589
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#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.
#cross_references MUID:91225489
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#formal_name Sus scrofa domestica #common_name domestic pig
30-Sep-1993_#sequence_revision 20-Aug-1994 #text_change
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#title Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1).
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50-68,'X',70-74,'X',76 ##label WE2
##experimental_source seminal vesicle
##experimental_source seminal wasicle
FICATION #superfamily macrophage inflammatory protein
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#formal_name Rattus norvegicus #common_name Norway rat
21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change
#journal Biochem. Biophys. Res. Commun. (1994) 199:962-968
#title Porcine luteal cells express monocyte chemoattractant protein-1 (MOP-1): Analysis by polymerase chain reaction and cDNA cloning.
#cross-references WID:94183284
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##residues 1-99 ##label ZAC
##ross-references EMBL:X79416; NID:9872312; PID:9872313
FFICATION #superfamily macrophage inflammatory protein
RDS 91ycoprotein
                                                                                                                                                                                                                                                                                               Zach, O. submitted to the EMBL Data Library, July 1994
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Pred. No. 2.34e-04;
0; Mismatches 1;
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ACCESSIONS

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#residues 1-96 ##label JOS #cossidues 1-96 ##label JOS #cossidues EMBL:X77603; NID:g602551; PID:g602552 # This protein is identified as a potent eosinophil chemoattractant.
                Jose, P.J.; Adcock, I.M.; Griffiths-Johnson, D.A.; Berkman, N.; Wells, T.N.C.; Williams, T.J.; Power, C.A.
Blochem. Blophys. Res. Commun. (1994) 205:788-794
Eotaxin: Cloning of an eosinophil chemoattractant cytokine and increased mRNA expression in allergen-challenged
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monocyte chemcattractant protein-2 precursor - pig
#formal_name Sus scrofa domestica #common_name domestic pig
24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
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Porcine luteal cells express monocyte chemoattractant
protein-2 (MCP-2): Analysis by cDNA cloning and northern
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#product monocyte chemoattractant protein-2 #status
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monocyte chemotactic protein 3 precursor - human
monocyte chemoattractant protein MCP-3
#formal_name Homo sapiens #common_name man
28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
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Pred. No. 2.34e-04;
0; Mismatches 1; Indels
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Pred. No. 2.34e-04;
0; Mismatches 1; Indels
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Opdenakker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.; Speleman, F.; Laureys, G.; Van Damme, J. Genomics (1994) 21:403-408

The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       #authors Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Liauzun, P.; Magazin, M.; Miloux, B.; Minty, C.; Ramond, P.; Vita, N.; Lupker, J.; Shire, D.; Ferrara, P.; Caput, D. Williamission submitted to the EMBL Data Library, March 1993 Molecular cloning of MCP-3: a human monocyte-derived monocyte
                                                                                                                                                                                                                                                                                                                  Opdenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme,
                                                                                                                                                                                                                                                                                                                                                    #journal Biochem Blophys. Res. Commun. (1993) 191:535-542
Human monocyte chemotactic protein-3 (MCP-3): Molecular
Cloning of the CDNA and comparison with other chemokines.
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#fille cDNA cloning of guinea pig monocyte chemoattractant protein-1
#cross.references MUID:93267100 of the recombinant protein.
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#length 109 #molecular-weight 12356 #checksum 1535
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#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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T This protein induces proteinase secretion and chemotaxis by
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#map_position 17q11-17q12
#introns 36/1; 75/2
A54678; JC1478; S32222
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#cross-references MUID:94375065
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Blochem. Blophys. Res. Commun. (1996) 225:1045-1051
Human dermal fibroblasts express ectaxin: Molecular cloning, mRNA expression, and identification of ectaxin sequence
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This protein has eosinophil specific chemotatic activity.
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Biochem. Biophys. Res. Commun. (1995) 211:289-295
Molecular cloning and posttranscriptional regulation of
macrophage inflammatory protein-1 alpha in alveolar
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macrophage inflammatory protein-lalpha - rat
#formal_name Rattus norvegicus #common_name Norway rat
29-May_1998 #sequence_revision 29-May-1998 #text_change
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#formal_name Homo sapiens #common_name man
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##molecule_type mRNA
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##status preliminary; translated from GB/EMBL/DDBJ#maredia.type mRNA ###nolecid...type mRNA
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Pred. No. 2.34e-04;
0; Mismatches 1; Indels
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#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146.3483-3488
#title neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.
#cross-references MUID:91225489
#accession 146871
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19-May-1994 #sequence_revision 19-May-1994 #text_change
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#superfamily beta-thromboglobulin
#length 95 #molecular-weight 10611 #checksum 3157
##residues 1-92 ##label RES
##Cross-references EMBL:U22414; NID:9790632; PID:9790633
CLASSIFICATION #superfamily macrophage inflammatory protein
sUMMARX #length 92 #molecular-weight 10335 #checksum 3184
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  #journal Gene (1993) 131:305-306
#title Cloning of a canine gene homologous to the human interleukin-8-encoding gene.
#cross_references_MUID:94010328
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##residues 1-101 ##label YOS
##cross-references GB:M57439; NID:q165553
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Pred. No. 1.58e-03;
1; Mismatches 1; Indels
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80.0%; Pred. No. 1.58e-03;
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interleukin-8 - rabbit
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inflammatory reaction in the rabbit peritoneal cavity in vivo. Purification, partial amino acid sequence and structural relationship to interleukin 8. structural relationship to interleukin 8. #accession $13.052 ##molecule_type protein ##residues $23.33, $2,35,$2,37.46,$2,48.49,$17,51.53 ##label BEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G. Immunol. Cell Biol. (1994) 72:398-405
#title Cloning, sequencing, expression and inflammatory activity in skin of ovine interleukin-8.
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#formal_name Ovis sp. #common_name sheep
21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
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CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 101 #molecular-weight 11292 #checksum 294
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(ML)	Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd	protein - protein database searc	Fri Feb 4 16:53:42 2000; Fastar 72.208 not generated.	>US-09-150-813-1 on: (1-12) from US09150813.pep core: 97 1 EICADPKQKWVQ 12	able: PAM 150 Gap 15	. 170751 segs, 21266608 residues	ressing: Minimum Match 0% Listing first 45 summaries	a-geneseq35 1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7 8:part8 9:part9 10:part10 11:part11 12:part12 13:part13 14:part14 15:part15 16:part16 17:part17 18:part18 19:part19 20:part20 21:part21 22:part22 23:part23 24:part24 25:part25 26:part26 27:part27 28:part28 29:part29 30:part30 31:part31 32:part32 33:part33 34:part34 35:part35 36:part36 37:part37 38:part38 39:part39
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pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. Variance 64.805; scale 0.285 Mean 18.469; Statistics:

SUMMARIES

	Pred. No.	7.70e-03 7.70e-03 7.70e-03 7.70e-03 7.70e-03 7.70e-03 7.70e-03 7.70e-03 7.70e-03 7.70e-03 7.70e-03 7.70e-03
	Description	Monocyte chemoattract Monocyte chemoattract Monocyte chemoattract Monocyte chemoattract des(2-8) MCP-1. Monocyte chemotactic Peptide from human gl (28-Asp) MCP-1. Mature human monocyte MCF.1. Macrophage chemoattra Sense MCP-1. Monocyte chemotactic (24-Arg) MCP-1.
2000	ID	M13598 M13599 M13597 M13596 R87678 R87675 W11131 W11131 W40175 W40175 R83398 R87676 R87676
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The present sequence represents an analogue, MCP-1 (11-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the as chemoattractant protein-1 (MCP-1). The analogue, which lacks the as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block of monocytes and other cells e.g. basophils and lymphocytes into inflammatory diseases. WCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung MCP-1 receptors than prior art mutant versions of MCP-1 for binding providing 50% inhibition of binding at a 25:1 ratio or less, compared
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Claim 7; Page 5; 27pp; English.
The present sequence represents an analogue, MCP-1 (9-76), of monocyte
chemoattractant protein-1 (MCP-1). The analogue, which lacks the
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Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
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Disclosure; Page 5; 27pp; English.
                                                                                            W13599 standard; peptide; 67 AA.
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WPI; 97-165844/16
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WPI; 97-165844/16.
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anti-inflammatory agent as a nanagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 are analogue is useful as an anti-inflammatory agent to block as the effects of MCP-1 which is an inflammatory mediator causing migration inflammatory alsases and other cells e.g. basophils and lymphocytes into inflammatory diseases e.g. arthritis, arteriosclerosis and chronic diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably with 75:1 for prior art mutant 7ND.
N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammatory affects. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung MCP-1 receptors than prior art mutant versions of MCP-1 for binding providing 50% inhibition of binding at a 25:1 ratio or less, compared Sequence 68 AA;
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Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) lacks MCP-1 activity and inhibits receptor binding, useful as
                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   des(2-8) MCP-1.
monocyte chemoattractant protein; MCP-1; mutant; restenosis;
                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                               Ouery Match 100.0%; Score 97; DB 24; Length 68; Best Local Similarity 100.0%; Pred. No. 7.70e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 97; DB 24; Length 69;
Pred. No. 7.70e-03;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                      W13596 standard; peptide; 69 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JT 5
R87678 standard; protein; 69 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 100.0%;
es 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21-FEB-1996 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-DEC-1996.
19-JUN-1995, 152141.
19-JUN-1995, CA-152141.
(LEWI/) LEWIS I.
                                                                                                                                                                                                                                                                                                   42 eicadpkqkwvg 53
                                                                                                                                                                                                                                                                                                                          43 eicadpkqkwvq 54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gong J, Lewis I;
WPI; 97-165844/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                             07-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CA2152141-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R87678;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                         RESULT
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     888888888888888
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Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are rapid and monocyte chemo-attractant activity of capable of inhibiting the monocyte chemo-attractant activity of andogenous MCP-1 and can be used to treat restenosis

For capable of inhibiting the monocyte chemo-attractant activity of endogenous

Some concyte chemoattractant protein 1 (MCP-1) derivatives are mutated such

MCP-1, provided that the derivative has not been modified by the

MCP-1, provided that the derivative has not been modified by the

MCP-1, provided that the derivative has not been modified by the

Substitution of 28 Tyr by aspartate: (2) substitution of 24 Arg

are: (1) substitution of 3 Tyr by aspartate: (2) substitution of 44 Arg

are: (1) substitution of 3 Tyr by aspartate: (2) substitution of amino

C by Phe; (3) substitution of 3 Tyr by aspartate: (2) substitution of amino

C acids 2-8. The present sequence is a specifically claimed human MCP-1

acids 2-8. The present protein disclosed in Rollins, Molecular

derivative based on the parent protein disclosed in Rollins, Molecular

C The peptides can be used to prevent restenosis, e.g. in patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -
Anti-sense Monocyte chaquosis of restenosis, etc.
Disclosure, Column 13-14; 16pp; English.
This is the amino acid sequence of the human monocyte chemoattractant
This is the amino acid sequence of the human monocyte chemoattractant
This is the amino acid sequence of the human monocyte chemoattractant
This is the amino acid sequence of the co-c chemokine family. MCP-1 is a potent
stimularor of monocyte chemotaxis and is produced by injured vascular
stimularor of monocyte chemotaxis and is produced by injured vascular
smooth cells thus attracting monocytes and macrophages which infiltrate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                 ______numino acids 2-8 of the native protein have been deleted between these residues"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-MAR-1997 (first entry)
Monocyte chemotactic protein 1.
Human; monocyte chemoattractant protein; antisense; inhibition;
mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
vascular restenosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 97; DB 14; Length 69;
Pred. No. 7.70e-03;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "encoded by codon CAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'note= "encoded by codon CAG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'note= "encoded by codon AUG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                undergoing coronary artery angioplasty.
Sequence 69 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-NOV-1995

05-NOV-1992; 965678.

22-OCT-1992; US-965678.

27-MAX-1994; US-205958.

(UNMI ) UNIV MICHIGAN.

KUNKAL SL, LYLE LR, Strieter RM;

WPI: 96-505405/50.
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                                                                                                                                                                                                                                                                            18-MAY-1995.
07-NOV-1994; U12874.
12-NOV-1993; US-152301.
(DAND ) DANB FARBER CANCER INST INC.
ROllins B, Zhang YJ;
WPI; 95-215051/28.
                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard; Protein; 76 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 12; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 misc_difference 5:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                   disulfide_bond
                                                                                                     modified_site
                                       Homo sapiens.
angioplasty
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Disclosure; page 3; 46pp; English.
Disclosure derived from glioma cell line U-105MG (ATCC CRL9932) or from
Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from
Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from Glioma cell line U-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
the injured area and release growth factor. This causes proliferation of the vascular smooth cells resulting in restenosis. The gene sequence can be used to generate antisense sequences e.g. T48093-7, which can be used to inhibit in vitro MCP-1 prodn. by mononuclear cells e.g. lymphocytes or macrophages, or smooth muscle cells, esp. in order to prevent vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -- "Tyr in the native sequence is replaced by Asp"
                                                                                                                                                                                                                                                                  ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           monocyte chemoattractant protein; MCP-1; mutant; restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 97; DB 1; Length 76; 100.0%; Pred. No. 7.70e-03; rvative 0; Mismatches 0; Indels
                                                                                                                                                                                                                   Score 97; DB 20; Length 76;
Pred. No. 7.70e-03;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (USSH) US Dept. of Health and Human.
Yoshimura T; Robinson E; Appella E; Leonard E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cell line U-105MG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note= "pyroglutamic acid"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Peptide from human glioma cell line U-lu
Glioma; leucocyte; chemotaxis; neoplasms.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-NOV-1993; US-152301.

(DAND) DANA FARBER CANCER INST INC.

ROLLINS B, Zhang YJ;

WPI; 95-215051/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     P90292 standard; peptide; 76 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /label= OTHER
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hes 12; Conservative
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                                                                                                                                                                                                                              Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -JAN-1990 (first entry)
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31-JAN-1989; US-304234.
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07-NOV-1994; U12874.
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                                                                                                                                                                                                                                                                                                                                      50 eicadpkqkwvq 61
                                                                                                                                                                                                                                                                                                                                                                     1 EICADPKOKWVO 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         76 AA;
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disulfide_bond
                                                                                                                                                                                       76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            modified_site
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             modified_site
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                                                                                                                                                                       restenosis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human.
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PT capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis

T endogenous MCP-1 and can be used to treat restenosis

C Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous

C MCP-1, provided that the derivative has not been modified by the cubstitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations

C are: (1) substitution of 28-Tyr by aspartate: (2) substitution of 24 Arg

C are: (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino caids 2-8. The present sequence is a specifically claimed human MCP-1

and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

C The peptides can be used to prevent restenosis, e.g. in patients

S Sequence 76 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               **Radio:Labelling neutrophil-activating peptide(s) - for imaging rargetted delivery of radioactive agent targetted delivery of radioactive agent targetted delivery of radioactive agent by targetted delivery of radioactive agent target to Column 19-20; 15pp; English.

**Column 20-20; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mature human monocyte chemoattractant protein-1 (MCP-1).
MCP-1; mature chemoattractant protein-1; cytckine; interleukin-8;
IL-8; neutrophil activating peptide; labelling; Imaging; targeting; radionuclide; infection; inflammation; neoplasm; atheromatous lesion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 97; DB 14; Length 76;
Pred. No. 7.70e-03;
Vismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 97; DB 21; Length 76;
Pred. No. 7.70e-03;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       _note= "X= any amino acid"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lyle LR, Strieter RM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W11131 standard; protein; 76 AA.
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(MLCW ) MALLINCKRODT MEDICAL INC.
(UNMI ) UNIV MICHIGAN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      / Match
Local Similarity 100.0%;
les 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10-JUN-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sest Local Similarity 100.0%;
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0; Indels

Score 97; DB 5; Length 76; Pred. No. 7.70e-03; 0; Mismatches 0; Indels

Match Local Similarity 100.08; 12; Conservative

Query Match

Matches

g

E.coli strains.
Claim 1: Page 48 + Page 36; 56pp; English.
An expression plasmid, pHM483, for producing MCF(76) consisting of 76 amino acids was constructed. The prod. can be used for e.g. treating bacterial infectious diseases.

Prodn. of polypeptide(s) having monocyte chemotactic activity using expression plasmids with E. coli elements and specific

12-NOV-1992. 27-APR-1992. 20-MAY-1991. JP-185550. (DAIN) DAINIPPON PHARM CO LTD. FUKUI T, MATSHO N, Yamada M, Yamagishi J; WPI; 92-398864/48.

Plasmid; monocyte chemotactic factor; MCF; translation; termination; terminator; initiation; ribosome binding site; RBS; promoter; tryptophan; repressor.

R28660 standard; Protein; 76 AA.

24-MAR-1993 (first entry)

R28660

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PF NOV-1994; U12874.

PF NOV-1994; U12874.

PR (07-NOV-1994; U12874.

PA (DAND) DANA FARBER CANCER INST INC.

PR (DAND) DANA FARBER CANCER INST INC.

ROLLINS B, Zhang YJ;

PT (Mann monocyte chemo-attractant protein-1 (MCP-1) derivs. - are endopenous MCP-1 and can be used to treat restenosis.

PT (DAND) DANA FARBER CANCER INST INC.

ROLLING CANCER INST INC.

CAPADO TO TAKE THE CAPADO TO THE CAPADO TO TAKE THE CAPADO TO TAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'note= "Asp in the native sequence is replaced by Ala"
                                                                                                                                                                                                                                                                                                 monocyte chemoattractant protein; MCP-1; mutant; restenosis;
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                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                              R87677 standard; protein; 76 AA.
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50 elcadpkqkwvq 61
                                                           1 EICADPKQKWVQ 12
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12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC.
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13-SEP-1993; JP-227385.
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WPI; 95-131181/17.
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The present sequence represents a monocyte chemoattractant peptide (MCP) The present sequence represents a monocyte chemoa gill interesting the present sequence) and peripheral blood mononuclear leukocytes. MCPs are used for the treatment of neoplasms and infections in humans. Short peptides derived from MCPs can be screened to identify those that can bind to the monocyte receptor without stimulating a chemotactic response. These are potentially useful for treating inflammation associated with monocyte infiltration.

Sequence 76 AA;
                                                                                                                                                           01-JUL-1998 (first entry)
Macrophage chemoattractant peptide designated GDCF-2.
Macrophage chemoattractant peptide; MCP-1; treatment; neoplasm;
Monocyte chemoattractant peptide; MCP: MCP-1; treatment; neoplasm;
infection; human; monocyte receptor; chemotactic response; inflammation;
monocyte infiltration.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Antisense; RNA; DNA; monocyte chemotactic protein-1; MCP-1; radionuclide; vascular restenosis; alpha; beta; emitting isotope;
                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide with chemotactic activity for monocytes - from human monocytes or glioma cells, useful for treating infections and
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Pred. No. 7.70e-03;
0; Mismatches 0; Indels
    Best Local Similarity 100.0%; Pred. No. 7.70e-03; Matches 12; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                              (USSH) US DEPT HEALTH & HUMAN SERVICES.
Appella E, Leonard EJ, Robinson EA, Yoshimura T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "Unspecified amino acid"
                                                                                                                                                                                                                                                                                          /note= "pyroglutamic acid"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diagnosis; monocytes; vascular injury.
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                                                                                                                                           W40175 standard; Protein; 76 AA.
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Local Similarity 100.0%;
les 12; Conservative
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20-OCT-1993; U10074.
22-OCT-1992; US-965678.
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31-JAN-1989; US-304234.
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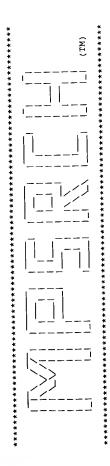
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wound treatment using monocyte chemotactic factor - has potent wounds treatment using monocyte chemotactic factor - has potent therapeutic effect on skin wounds and ulcers
Disclosure; Page 12; 22pp; Japanese.
The invention relates to a new remedy for curing wounds which, instead of comprising a growth factor, comprises a monocyte chemotactic activating factor (WARF) or its variants or derivatives. The factor has potent effect on skin wounds and ulcers. The present sequence is human MCAF, the activity of which is exemplified as the new remedy.
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Disclosure; Page 5; 42pp; English.

The sequences given in R53398-99 represent sense and antisense monocyte chemotactic protein-1 (MCP-1) respectively. These monocyte chemotactic protein-1 (MCP-1) respectively. These oligonotleotides may be labelled with a radionuclide and use oligonotleotides may be constructed using Radiolabelled antisense MCP-1 compounds may be constructed using high energy alpha or beta emitting isotopes rather than the gamma energy alpha or beta emitting isotopes rather than the gamma emitters cutomarily used for diagnostic purposes. Antisense MCP-1 compounds inactivate MCP-1 or inhibit production of MCP-1 so that monocytes are not attracted to the area of vascular injury and proliferation of vascular cells is inhibited.
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Pred. No. 7.70e-03;
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Pred. No. 7.70e-03;
0; Mismatches 0; Indels
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R87676 standard; protein; 76 AA.
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les 12; Conservative
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Search completed: Fri Feb 4 16:54:02 2000 Job time: 20 secs.



Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (C) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 17:03:54 2000; MasPar time 2.71 Seconds 125.370 Million cell updates/sec

Tabular output not generated.

Run on:

>US-09-150-813-38 (1-12) from US09150813.pep 102

1 QVCIDPKLKWIQ 12 Description: Perfect Score: Sequence:

Scoring table:

77977 seqs, 28268293 residues PAM 150 Gap 15 Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

1:swissprot swiss-prot37 Database:

Mean 26.343; Variance 33.254; scale 0.792 Statistics:

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Pred. No.	4.02e-11	4.02e-11	3.89e-05	3.89e-05	3.89e-05	1.15e-04	1.96e-04	1.96e-04	1.96e-04	1.96e-04	3.33e-04	5.65e-04	5.65e-04	5.65e-04	9.55e-04	9.55e-04	1.61e-03	1.61e-03	1 610-03	2010010	2.70e-05	7 (2./ue-us
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ALIGNMENTS

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration the between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its most profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/l
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BETA; ARE PROBABLY GENERATED BY ALTERNATIVE SPLICING.
SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS; ALPHA AND BETA (SHOWN HERE); ARE GENERATED BY ALTERNATIVE SPLICING.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Gaps
                                                                                                                                                                                                                                                                                                                                                        CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FELIS SILVESTRIS CATUS (CAT).
EUKRKYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
CARNIVORA; FISSIPEDIA; FELIDAE; FELIS.
                                                                                                                                                                                                                                                                                                                                                                                      STROMAL CELL-DERIVED FACTOR 1.
BY SIMILARITY.
K -> KRLKM (IN PORM BETA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 102, DB 1; Length 89;
Pred. No. 4.02e-11;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                            PIR; A53497; A53497.
MGD; MGI:10356; SDF1.
PROSITE; PS004011; SNALL_CYTOKINES_CXC; FALSE_NEG.
PFAM: PF00048; 118; 1.
HSSP; P48061; 2SDF.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-DEC-1998 (REL. 37, CREATED)
15-DEC-1998 (REL. 37, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                    222C4E52 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                               89 AA; 10032 MW;
                                 C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Match
Local Similarity 100.0%;
                                                                                                                                                                                   EMBL; D21072; G468457; -. EMBL; L12029; G393180; -.
                                                                                                                                                                                                                                               D43804; G1304174; - D43805; G1304175; -
                                                                                                                                                                                                                EMBL, L12030, G393182, --
EMBL, S74318, G786394, --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        69 QVCIDPKLKWIQ 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 98450506.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE-THYMUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SDF1_FELCA
062657;
                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                             EMBL;
                                                                                                                                                                                                                                                EMBL;
                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
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-! FUNCTION: CHEMOATTRACTANT ACTIVE ON T-LYMPHOCYTES, MONOCYTES, BUT NOT NEUTROPHILE.

-! ALTERNATIVE PRODUCTS: TWO DIFFERENT FORMS; ALPHA AND BETA (SHOWN HERE); ARE GENERATED BY ALTERNATIVE SPLICING.

-! SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                 Gaps
              01-FEB-1996 (REL. 33, CREATED)
01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
11-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
STROMAL CELL-DERIVED FACTOR 1 PRECURSOR (SDF-1) (PRE-B CELL GROWTH STIMULATING FACTOR) (PBSF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Solution structure and basis for functional activity of stromal cell-derived factor-1; dissociation of CXCR4 activation from binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Structure and chromosomal localization of the human stromal cell-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CRUMP M.P., GONG J.H., LOETSCHER P., RAJARATHNAM K., AMARA A.,
ARENZANA-SEISDEDOS F., VIRELIZIER J.L., BAGGIOLINI M., SYKES B.D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEALWIS C., FERNANDEZ E.J., THOMPSON D.A., SIMON R.J., SIANI M.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cell-derived factor lalpha, a potent ligand for the HIV-1 'fusin'
                                                                                                                                                                                                ;
                                                                                                                                                                                                                                                                                                                                                                                                               EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAB; HOMO.
                                                                                STROMAL CELL-DERIVED FACTOR 1.
BY SIMILARITY.
BY SIMILARITY.
MISSING (IN FORM ALPHA).
4BB71366 CRC32;
                                                                                                                                                                 Score 102; L. Pred. No. 4.02e-11; Pred. No. 4.02e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Crystal structure of chemically synthesized [N33A] stromal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SHIROZU M., NAKANO T., INAZAWA J., TASHIRO K., TADA H., SHINOHARA T., HONJO T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUBMITTED (OCT-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                X-RAY CRYSTALLOGRAPHY (2.2 ANGSTROMS) OF 22-88.
                                                                                                                                                                                                                                                                                                    93 AA.
 or send an email to license@isb-sib.ch).
                                                                                                                                                               Score 102;
                                                                                20 93 S
30 55 B
32 71 B
90 93 M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene.";
                                                                                                                                                  Query Match
Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    [3]
STRUCTURE BY NMR OF 22-88.
MEDLINE; 98046030.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBO J. 16:6996-7007(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           derived factor 1 (SDF1) ge
GENOMICS 28:495-500(1995).
                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                               69 QVCIDPKLKWIQ 80
                                                                                                                                                                                                                                1 QVCIDPKLKWIO 12
                                                                                                                                                                                                                                                                                                                                                                                                    HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and inhibition of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96039262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98284037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLARK-LEWIS I.;
                                                                                                                                                                                                                                                                                T 3
SDF1_HUMAN
                                                                                                           DISULFID
                                                                                                                      VARSPLIC
                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                        P48061;
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STTTTTTTS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -i- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; CAPRINAE; OVIS.
                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LEGASTELOIS I., GREENLAND T., ARNAUD P., MORNEX J.F., CORDIER G.; "Sequencing of the ovine interleukin-8-encoding cDNA using the polymerase chain reaction.";
                                                                                                                                                                                            CYTOKINE; CHEMOTAXIS; GROWTH FACTOR; SIGNAL; ALTERNATIVE SPLICING;
                                                                                                                                                                                                                                                                                                                                                ó
                                                                                                                                                                                                                                      STROMAL CELL-DERIVED FACTOR 1.
                                                                                                                                                                                                                                                                                                                       DB 1; Length 93;
                                                                                                                                                                                                                                                                                                                         Score 102; DB 1; Length 93; Pred. No. 4.02e-11; 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                            93 MISSING (IN FORM ALPHA).
10666 MW; 4B9911C7 CRC32;
                                                                                                                                                                    PROSITE; PS00471; SMALL_CYTOKINES_CXC; FALSE_NEG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JUN-1994 (REL. 29, CREATED)
01-JUN-1994 (REL. 29, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
INTERLEUKIN-8 PRECURSOR (IL-8).
                                                                                                                                                                                                                            POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                         100.0%;
Local Similarity 100.0%;
les 12; Conservative
                                                                                       EMBL; U16752; G571508; -. EMBL; L36033; G1220366; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENE 150:367-369(1994).
                                                                                                                                                                                                                             19
93
55
71
                                                                                                                  1SDF; 28-JAN-98.
2SDF; 17-JUN-98.
1A15; 12-AUG-98.
600835; -.
                                                                                                                                                                                                                                                                                                                                                                               69 QVCIDPKLKWIQ 80
                                                                                                                                                                                                                                                                                                                                                                                             1 QVCIDPKLKWIQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OVIS ARIES (SHEEP).
                                                                                                                                                                                     PFAM; PF00048; 118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95137691.
                                                                                                                                                                                                                                                                                                93 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 95121931
                                                                                                                                                                                                                  3D-STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IL8_SHEEP
P36925;
                                                                                                                                                                                                                                                                     DISULFID
VARSPLIC
SEQUENCE
                                                                                                                                                                                                                                                           DISULFID
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                                                                                                                                                                                                                                  SIGNAL
                                                                                                                                                                                                                                                CHAIN
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                                                                                                                                   PDB;
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"Borrelia burgdorferi migrates into joint capsules and causes an upregulation of interleukin-8 in synovial membranes of dogs experimentally infected with ticks.";

INFECT. IMMUN. 65:1273-1285(1997).

-I-FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS INDITROPHILS, I-FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS INVOLVED IN BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN RESPONSE TO AN INFLAMMATORY STIMULUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
STRAIN-MONGREL; TISSUE-JUGULAR VEIN;
MEDLINE; 95114148.
KUKIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
MENDOZA L.H., DALY T.J., HUGHES B.J., YOUKER K.A., HAWKINS H.K.,
MICHAEL L.H., ROT, ERMYAN M.L.;
"Interleukin-8 gene induction in the myocardium after ischemia and
reperfusion in vivo.";
                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 94010328.

SISTRIARAMA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.; I.Cloning of a canine gene homologous to the human interleukin-8-encoding gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T., GOINGUKA R., ISUJIMOTO H., HASEGAWA A., FURUSAWA S., YOSHIHARA K., ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
"Molecular cloning and expression of canine interleukin 8 cDNA.";
                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
CARNIVORA; FISSIPEDIA; CANIDAE; CANIS
                                                                                                                                                                                                                                                                                                                                           Score 78; DB 1; Length 101;
Pred. No. 3.89e-05;
3; Mismatches
                                                                                                                                                                           CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                         1 22 BY SIMILARITY.
23 101 INTERLECKIN'8.
34 61 BY SIMILARITY.
36 77 BY SIMILARITY.
101 AA; 11292 MW; 5A574527 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-DEC-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 101 AA.
EMBL; X78306; G463254; -.
EMBL; S74456; G786591; -.
PIR: S42496; S42496.
PROSITE; PS000471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; i18; 1.
HSSP; P10145; 11KL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLIN. INVEST. 95:89-103(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INTERLEUKIN-8 PRECURSOR (IL-8).
                                                                                                                                                                                                                                                                                                                                                                          76.5%;
                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity 66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOKINE 6:455-461(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CANIS FAMILIARIS (DOG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENE 131:305-306(1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      75 EVCLDPKEKWVQ 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      :||:||| ||:|
1 QVCIDPKLKWIQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 97230298.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. TISSUE=LYMPH NODE; MEDLINE; 95127913.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE; 94010328.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN=BEAGLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IL8_CANFA
P41324;
                                                                                                                                                                                                                                            CHAIN
DISULFID
                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                                                                                                                                                                                             DISULFID
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Matches
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-!- SUBUNIT: HOMODIMER.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                          01-AUG-1991 (REL. 19, CREATED)
01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
01-AUG-1996 (REL. 34, LAST ANNOTATION UPDATE)
INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Molecular cloning of porcine alveolar macrophage-derived neutrophil chemotactic factors I and II; identification of porcine IL-8 and another intercrine-alpha protein."; BlocHEMISTRY 31:10483-10490(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 93041741.
GOODMAN R.B., FOSTER D.C., MATHEWES S.L., OSBORN S.G., KUIJPER J.L.,
FORSTROM J.W., MARTIN T.R.;
                                                                                                                                                                                                                                                                                                                                      .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; SUIFORMES; SUINA; SUIDAE; SUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 94103307.

LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J., WEISS D.J., MURTAGEM M.P.,

"Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.",

J. BIOL. CHEM. 269:77-85(1994).
                                                                                                                                                                                                                                                                                                             DB 1; Length 101;
                                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                     CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBMITTED (JUL-1991) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GODDMAN R.B.;
SUBMITTED (MAR-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                        Score 78; DB 1; Le
Pred. No. 3.89e-05;
3; Mismatches 1;
                                                                                                                                                                                                                                                            BY SIMILARITY.
BY SIMILARITY.
7C49D62D CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                             103 AA.
                                                                                                                                                                                                                                       BY SIMILARITY.
INTERLEUKIN-8.
                                                                                                                                                                                    PROSITE; PS00471; SWALL_CYTOKINES_CXC; 1.
PFAM; PF00048; il8; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A., AND SEQUENCE OF 26-45.
                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                                                                                                                                                                                                                                                  101 AA; 11280 MW;
                                                                                                                                                                                                                                                                                                         76.5%;
                                                                                                                                         EMBL; D28772; G517100; -.
                                                                                                                                                               EMBL; U10308; G607814; -. EMBL; AF048717; G2935472;
                                                                                                                                                                                                                                                                                                                                 8; Conservative
                                                                                                                                                    D14285; G475152; -
                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                   75 EVCLDPKEKWVQ 86
                                                                                                                                                                                                                                                                                                                                                                          1 QVCIDPKLKWIQ 12
                                                                                                                                                                                                             HSSP; P10145; 11KL.
                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCROFA (PIG).
                                                                                                                                                                                                                                                                                                                                                                                                                      ILB_PIG
P26894; P22951;
01-AUG-1991 (RE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REVISION TO 23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SANJANWALA M
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                                                                                                                                                                                                                                                                                                       Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ..
                                                                                                                                                                                                                                      -i-TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
-i-INDUCTION: BY LIPOPOLYSACCHARIDE.
-i-SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                porcine alveolar macrophages. "
J. BALO. CHEM. 266:8455-8463(1991).
-'I- FUNCTION: IL-8 IS A CHEMOACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
-'- SUBUNIT: HOMODIMER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YOSHIMURA T., JOHNSON D.G., Continuous pig neutrophil attractant continuous cloning and expression of guinea pig neutrophil attractant protein-1 (NAP-1). NAP-1 is highly conserved in guinea pig.", J. IMMUNOL. 151:6225-6236(1993).
                                                       GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.; "Identification of two neutrophil chemotactic peptides produced by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         [NTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT PROTEIN 1)
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EUKARYOTA: METAZOA: CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 78; DB 1; Length 103;
Pred. No. 3.89e-05;
3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL. SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BY SIMILARITY.
BY SIMILARITY.
RC -> CR (IN REF. 5).
K -> KK (IN REF. 2).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT; 101 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INTERLEUKIN-8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PIR; A44253; A44253.

PIR; A39819; A39819.

PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.

PFAM; PF00048; 118; 1.

HSSP; PI0145; 11KL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RODENTIA; HYSTRICOGNATHI; CAVIDAE; CAVIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-1996 (REL. 33, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   103 AA; 11633 MW;
                                                                                                                                                                                                                                                                                                      C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; M86923; G164521; -.
EMBL; X61151; G516197; -.
EMBL; M99367; G1235612; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
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61
77
34
87
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SEQUENCE OF 26-45.
                     STRAIN=YORKSHIRE;
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P49113;
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DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-40N-1990 (REL. 13, LAST REQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC AND ADD ACTIVATING FACTOR) (MONOCYTE SECRETORY (MCAP) (MONOCYTE SECRETORY (MCAP) (MONOCYTE CHEMOTATRACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE (MONOCYTE CHEMOATTRACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN SERSPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
SUBUNIT: HOMODIMER (BY SIMILARITY).
SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE."; FEBS LETT. 244:487-493(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FURUTANI Y., NOMURA H., NOTAKE M., OYAWADA Y., FUKUI T., YAWADA M., LARGEN C.G., OPPENHEIM J.J., MATSUSHIMA K.; "Cloning and sequencing of the cDNA for human monocyte chemotactic
                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ROLLINS B.J., STIER P., ERNST T., WONG G.G.; "The human homolog of the JE gene encodes a monocyte secretory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HOMO SALIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YOSHIMURA T., YUHKI N., MOORE S.K., APPELLA E., LERMAN M.I.,
                                                                                                                                                                                                                                                                                                               Length 101;
                                                                                                                                                                                                                                                                                                                                        1; Indels
                                                                                                                                                                                                                                 ASSE, FLOATS, THE AMMATORY RESPONSE, SIGNAL. SIGNAL 1 22 BY SIMILARITY. SIGNAL 23 101 INTERLEUKIN-8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and activating factor (MCAF).";
BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
                                                                                                                                                                                                                                                                                                                Score 76; DB 1; L4
Pred. No. 1.15e-04;
3; Mismatches 1;
                                                                                                                                                                                                                                                                   BY SIMILARITY.
BY SIMILARITY.
E13FB521 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                      99 AA
                                                                                                                                                                                              PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein.";
MOL. CELL. BIOL. 9:4687-4695(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JAN-1990 (REL. 13, CREATED)
                                                                                                                                                                                                                                                                     34 61 B
36 77 B
101 AA; 11414 MW;
                                                                                                                                                                                                                                                                                                                    74.5%;
                                                             C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                    EMBL; L04986; G459765; -.
                                                                                                                                                                                                           PFAM; PF00048; 118; 1.
HSSP; P10145; 11KL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                          MCP1_HUMAN
P13500;
                                                                                                                                                                                                                                                                                               SEQUENCE
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WEBER. W., UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A., "Deletion of the NH2-terminal residue converts monocyte chemotactic protein I from an activator of basophil mediator release to an eosinophil chemoattractant.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HANDEL T.M., DOMAILLE P.J.;
HANDEL T.M., DOMAILLE P.J.;
Heteronuclear (1H, 13C, 15N) NMR assignments and solution structure of the monocyte chemoattractant protein-1 (MCP-1) dimer.";
BIOCHEMISTRY 35:6569-6584(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LUBKOWSKI J., BUJACZ G., DOMAILLE P.J., HANDEL T.M., WLODAWER A.; LUBKOWSKI J., BUJACZ G., DOMAILLE P.J., HANDEL T.M., WLODAWER A.; of variable quaternary interactions."; NAT. STRUCT. BIOL. 4:64-69(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R., SHABANOWITZ J., HUNT D.F., APPELLA E.; "Complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune reactions."; PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GRONENBORN A.M., CLORE G.M.; Modeling the three-dimensional structure of the monocyte chemo-modeling the three-dimensional structure of the basis of the attractant and activating protein MCAF/MCP-1 on the basis of the solution structure of interleukin-8."; PROFIEIN ENG. 4:263-269(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "The expression of monocyte chemotactic protein (MCP-1) in human
                                                                                                                                                                                                                                                                               CHANG H.C., HSU F.; FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.; "Cloning and expression of a gamma-interferon-inducible gene in monocytes: a new member of a cytokine gene family."; INT. IMMUNOL. 1:388-399(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 94150478.
MEDLINE; 94150478.
KOLATTUKUDY P.E.; WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
                                           SHYY Y.J., LI Y.S., KOLATTUKUDY P.E.; "Structure of human monocyte chemotactic protein gene and its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              YOSHIMURA T., LEONARD E.J.; "Human monocyte chemoattractant protein-1 (MCP-1)."; ADV. EXP. MED. BIOL. 305:47-56(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
                                                                                                                              regulation by TPA.";
BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       vascular endothelium in vitro and in vivo.";
MOL. CELL. BIOCHEM. 126:61-68(1993).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 29-53 AND 82-92.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE; 96234959.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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SEQUENCE FROM N.A. MEDLINE; 90290466.
                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
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                                                                                                                                                                                                              chemoattractant protein-3.";
FEBS LETT. 395:277-28(1996).
-!-FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ATTI-TUMOR ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES CHARACTERIZED BY MONOCYTIC INFIGRATES, LIKE PSORIASIS, RHEUMATOLD OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF ATHEROSCLEROSIS.
                                                                                                                                                                                                                                                                                                                                                    SUBUNIT: MONOMER OR HOMODINER: IN EQUILIBRIUM.

CHAIR PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERS IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT.

SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                          MEDLINE; 94253189.
ZHANG Y.J., RULLINS B.J.;
ZHANG Y.J., RULLEDGE B.J., ROLLINS B.J.;
SINCETURE/activity analysis of human monocyte chemoattractant
protein-1 (MCP-1) by mutagenesis. Identification of a mutated protein
that inhibits MCP-1-mediated monocyte chemotaxis.";
J. BIOL. CHEM. 269:15918-15924(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
                                                                                                                                                                              KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
"Structural characterization of a monomeric chemokine: monocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MISSING: LOSS OF ACTIVITY.
MISSING: LOSS OF ACTIVITY.
MISSING: 90% REDUCTION IN ACTIVITY.
MISSING: 83% REDUCTION IN ACTIVITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POTENTIAL.
J. EXP. MED. 183:681-685(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                M30816, G386961, JOINED.
M31625, G386961, JOINED.
M24545, G307163, ...
M28226, G338009; ...
X14768, G34514; ...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           M28223; G338007; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S69738; G545465; -. S71513; G240868; -. A17786; G641145; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; M31626; G386961; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 14-0CT-96.
14-0CT-96.
15-0CT-94.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LDOK; 12-MAR-97.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12-MAR-97
                                                                                                                                                                      MEDLINE; 97053697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LDOM;
                                                                                                                                                     SUBUNIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOD_RES
DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MUTAGEN
MUTAGEN
MUTAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MUTAGEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL;
EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PIR;
PIR;
PDB;
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0
                                                                                                                                                                                                                                                                                                                                                                               CAN BIND HEPARIN.
-!- SUBUNIT: MONONER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                           EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOVINAE; BOS.
                                                                                                                                     ;
0
                                                Y->5: LOSS OF ACTIVITY.
R->1: LOSS OF ACTIVITY.
D->1: 90% REDUCTION IN ACTIVITY.
5355B695 CRC32;
       IN ACTIVITY
IN ACTIVITY
                             IN ACTIVITY
IN ACTIVITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 2.
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                   15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                  2; Indels
                                                                                                             Length 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 75; DB 1; Length 99;
Pred. No. 1.96e-04;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                             BOS TAURUS (BOVINE).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA;
                REDUCTION DEPO PREDUCTION DE
                                                                                                       Score 75; DB 1; Le
Pred. No. 1.96e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
9BA2CD26 CRC32;
                                                                                                                                3; Mismatches
                                                                                                                                                                                                                           99 AA
                                                                                                                                                                                                                                                          (REL. 32, LAST SEQUENCE UPDATE)
              N->A: 508
R->F: 958
S->Q: 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PS00472; SMALL_CYTOKINES_CC; 1.
    D->A:
N->A:
                                                                                                                                                                                                                           PRT;
                                                                                                                                                                                                                                        01-NOV-1995 (REL. 32, CREATED)
                                                                                 11025 MW;
                                                                                                        73.58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10900 MW;
                                                                                                                             7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 73.58;
                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; S67954; E118856; -. EMBL; S67956; G544997; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PFAM; PF00048; 118; 1.
HSSP; P80098; 1NCV.
                                                                                                                                                 73 EICADPKQKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23
99
24
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1 QVCIDPKLKWIQ 12
                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73 DVCADPKQKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 OVCIDPRIKWIQ 12
                                                                                99 AA;
                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 94114084.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99 AA;
  26
29
29
51
51
91
                                                                                                                                                                                                                                                                                                  SCYA8 OR MCP2
                                                                                                                                                                                                           LT 9
MCP2_BOVIN
Q09141;
                                                                                                                                                                                                                                                       01-NOV-1995
                                                                                                                                                                                                                                                                15-JUL-1998
                                MUTAGEN
MUTAGEN
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MUTAGEN
SEQUENCE
MUTAGEN
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MUTAGEN
                                                                                                      Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHAIN
MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
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MCP1_PIG
P42831;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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LINDSEY M.L., HAWKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J.,
ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                      BOS TAURUS (BOVINE).
EUKRRYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
CARNIVORA; FISSIPEDIA; CANIDAE; CANIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                         MORSEY M.A., POPOWYCH Y., KOWALSKI J., GERLACH G., GODSON D., CAMPOS M., BABIUK L.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOATTRACTANT PROTEIN-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 75; DB 1; Length 101; Pred. No. 1.96e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     34 61 BY SIMILARITY.
36 77 BY SIMILARITY.
101 Aa; 11291 MW; 0E39C526 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-0CT-1996 (REL. 34, CREATED)
01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT; 101 AA.
                                                                   01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BY SIMILARITY.
INTERLEUKIN-8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PSO0471; SMALL_CYTOKINES_CXC; 1.
PPAM; PF00048; i18; 1.
HSSP; P10145; 11KL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE-JUGULAR VEIN ENDOTHELIAL; MEDLINE; 97176620.
                                                                                                                        INTERLEUKIN-8 PRECURSOR (IL-8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                          C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; S82598; G1699354;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SCYA2 OR MCP1.
CANIS FAMILIARIS (DOG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22
101
61
                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       :||::|| ||:|
1 QVCIDPKLKWIQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             75 EVCLNPKEKWVQ 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                       96304552
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P52203;
                                                                                                            01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
                                   IL8_BOVIN
P79255;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SECUENCE
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-:- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                   -- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR VEINS, AND INTLIRATING LEUROCYTES.
-- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTORINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTKE W., SCHEIT K.H.; "Porcine luteal cells express monocyte chemoattractant protein-1 "Porcine luteal cells express chain reaction and cDNA cloning."; (MCP-1): analysis by polymerase chain reaction and cDNA cloning."; BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
                                                                            -:- FUNCTION: CHEWOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM. MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE REPERFUSED MYOCARDIUM.
"Induction of monocyte chemoattractant protein-1 in the small veins of the ischemic and reperfused canine myocardium."; CIRCULATION 95:693-700(1997).
                                                                                                                                                                                                                                  -i- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-i- INDUCTION: BY INF-ALPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 75; DB 1; Length 101; Pred. No. 1.96e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A7075B14 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1995 (REL. 32, LAST SEGUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ARTIODACTYLA; SUIFORMES; SUINA; SUIDAE; SUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PSO0472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P13500; 1DON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-NOV-1995 (REL. 32, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        34 59 B
35 75 B
101 AA; 11121 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; U29653; G1144186; -
                                                                                                                                                                                                                                                                                                                                                                                               C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 OVCIDPKLKWIQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 73 EICADPKQKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUS SCROFA (PIG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE-BRAIN;
ZACH O.R.F.;
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                                                                                                                    STRAIN-C57BL/65; TISSUE-LUNG; MEDINE: 96158746.
MEDLINE: 96158746.
GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J., GONZALO J.-A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPF M., GUTIERREZ-RAMOS J.-C.; Mouse ectaxin expression parallels ecsinophil accumulation during lung allergic inflammation but it is not restricted to a fh2-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ROTHENBERG M.E., LUSTER A.D., LEDER P., "Murine ectaxin: an ecsinophil chemoattractant inducible in endothelial cells and in interleukin 4-induced tumor suppression."; PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
                                                                                                                                                                                                                                                                                                                                                ·;
                                                                                                                                                                                                      BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                             Score 74; DB 1; Length 99;
Pred. No. 3.33e-04;
4; Mismatches 2; Indels
                                                                                                                                                                                    CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-FEB-1996 (REL. 33, CREATED)
01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                             BY SIMILARİTY.
BY SIMILARITY.
ECC3AFB4 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                97 AA.
                                                                                                                                              PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; i18; 1. HSSP; P13500; 1DON.
                                                                                                                                                                                                                                               SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                 99 AA; 10976 MW;
                                                                                                                                                                                                                                                                                                             Match 72.5%;
Local Similarity 50.0%;
                                                                                                                    EMBL; Z48479; G683717; -: EMBL; X79416; G872313; -:
                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                            1 OVCIDPKLKWIQ 12
                                                                                                                                                                                                                                                                                                                                                           73 EICAEPKOKWVO 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MUS MUSCULUS (MOUSE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IMMUNITY 4:1-14(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=LUNG;
MEDLINE; 96004658.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                         EOTA_MOUSE
P48298;
                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                             MOD_RES
                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                  SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHÖRDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                2; Indels
                                                                                                                                                                                                                                                                                                                    Score 73; DB 1; Length 97;
                                                                                                                                                                                                       EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBMITTED (DEC-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   P97545; 008780;
15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
BOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALJ
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                Pred. No. 5.65e-04;
3; Mismatches 2
                                                                                                                                                                                                                                                                                          F85A96BC CRC32;
                                                                                                                                                                                                                                                     EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                           EMBL; U26426; G995911; -
EMBL; U40672; G1113937; -
MGD; MGI:103576; SCYA11.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                        POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                      97 AA; 10893 MW;
                                                                                                                                                                                                                                                                                                                 Match
Local Similarity 58.3%;
 C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                           7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                PFAM; PF00048; i18; 1.
HSSP; P80098; 1NCV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; Y08358; E274141; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G2098785; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RATTUS NORVEGICUS (RAT)
                                                                                                                                                                                                                                                                                                                                                                               1 OVCIDPKLKWIQ 12
                                                                                                                                                                                                                                                                                                                                                               71 EICADPKKKWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             096637;
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                                                                                                                                                                                                                                                             DISULFID
                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                               Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Human monocyte chemoattractant protein (MCP)-4 is a novel CC chemokine with activities on monocytes, eosinophils, and basophils induced in allergic and nonallergic inflammation that signals through the CC chemokine receptors (CCR)-2 and -3.";
J IMMUNOL. 157:5613-5626(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N., APPELBAUM E., FRAPE T.J., BRAWNER M., MAKWANA J., FOLEY J.J., SCHMIDT D.B., IMBURGIA C., MACNULTY D., MATTHEWS J., O'DONNELL K., SCHMIDT D.B., IMBURGIA C., MACNULTY D., MATTHEWS J., O'DONNELL K., C., SCHNIDT D.B., IMBURGIA C., MACOPHE C., MACPHEE C., CIOCIONEL F., CLONING, in vitro expression, and functional characterization of a novel human CC chemokine of the monocyte chemotactic protein (MCP) family (MCP-4) that binds and signals through the CC chemokine
                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IISSUE-LUNG;
POWER C.A., MEYER A., RISON S.C.G., GUYE-COULIN F., WELLS T.N.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
LAVIGNE F., HAMID Q., MURPHY P.M., LUSTER A.D.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUGARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                              15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
CHEMOATTRACTANT PROTEIN 4) (CK-BETAID) (NCC-1).
                                                                                                                                                                                                       2; Indels
                                                                                                                                                                      Length 97;
HSSP; P80098; 1NCV.
EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DANTE M., GIBSON A.;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                      Score 73; DB 1; Lk
Pred. No. 5.65e-04;
3; Mismatches 2;
                                                                                                                          05B4ED45 CRC32;
                                                                                                                                                                                                                                                                                                                                       98 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
                                                                             BY SIMILARITY.
BY SIMILARITY.
                                                                                                              POTENTIAL.
                                                 POTENTIAL.
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                                                                                                                                                                           Score 73;
                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                            Pred.
                                                                                                                                                                                                                                                                                                                                                                        5-JUL-1998 (REL. 36, CREATED)
                                                                                                                               3 3
97 AA; 10851 MW;
                                                                                                                                                                              71.68;
                                                                                                                                                                                                           7; Conservative
                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SCYA13 OR MCP4 OR NCC1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GIBSON A.;
                                 INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                           71 EICADPKKKWVQ 82
                                                                                                                                                                                                                                                          1 QVCIDPKLKWIQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HOMO SAPIENS (HUMAN)
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                                                                                                                                                                                               Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                            MCP4_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      receptor
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                                                                                                                                    CONFLICT
                                                                                 DISULFID
                                                                                                   DISULFID
                                                                                                                   CARBOHYD
                                                                                                                                                                                Query Match
                                                       SIGNAL
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Search completed: Fri Feb 4 17:04:05 2000

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                                                                                                     SUBMITTED (DEC-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

1. FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMILATION OF
LEDKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
WALL DURING THE DISEASE PROCESS OF ARTHEROSCLEROSIS. MAY PLAY A
ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MONOCYTE CHEMOTACTIC PROTEIN 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PYRROLIDONE CARBOXYLIC ACID.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 73; DB 1; Li
Pred. No. 5.65e-04;
3; Mismatches 2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL.
DF52F6EC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29
10986 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  71.6%;
58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; U46767; G1732123; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                               L; AC002482; G2340091;
L; X98306; E248571; -.
                                                                                                                                                                                                                                                                                     C-C) (CHEMOKINE CC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PFAM; PF00048; 118; 1.
HSSP; P13500; 1DOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
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protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 17:03:15 2000; MasPar time 3.60 Seconds 133.382 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-38 (1-12) from US09150813.pep 102 1 QVCIDPKLKWIQ 12 Description: perfect Score: Sequence:

122810 seqs, 40068593 residues PAM 150 Gap 15 Scoring table:

Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

pir60

Database:

1:pirl 2:pir2 3:pir3 4:pir4

Mean 25.707; Variance 37.444; scale 0.687 Statistics:

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	on Pred. No.	interleukin-8 homolog 2.50e-09	, ,	SDF-1-Deta - 2.	- mouse -	-8 - dog -4.	ı	- sueep 4		4.	<u>.</u>	<u>.</u>	chemoattract 3.	rabbi 7	tract 7.	chemoattract 1.20e-02	1 + 1 + 1 + 1 + 1	· •	Haco I		-i -	chemoattract 1.	chemoattract 1.	s chemoattract 4.70e-02	Chemodret - h 4	:	
	Description	interleuk	pre-B-cel	cytokine	cytokine	interleukin-8	interleukin	interleukin-8	interleukin-8	alveolar	Neutroph	monocyte	monocyte	interleukin-8 -	monogyte	a typodom	monocy co	MODOCYLE	macropha	eotaxin	eotaxin	monocyte	monocyte	41100000	monocy ca	eotaxin	
	ΙD	153416	A53497	G01540	181182	JN0841	S42496	146997	A53096	A44253	148148	A60299	TC2136	T46871	146951	100011	35230	A39296	152322	148099	JC2478	JC2417	TA8147		A46539	JC4912	
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##residues

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Tashiro, K.; Tada, H.; Heilker, R.; Shirozu, M.; Nakano, T.;
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                                                    ##cross-references GB:D21072; NID:9413905; PID:d1005177; PID:9468457
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cytokine SDF-1-beta - human
*formal_name Homo sapiens *common_name man
21-bec-1996 *sequence_revision 06-Jun-1997 *text_change
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                                                                                               #journal Science (1993) 261:600-603
#title Signal sequence trap: a cloning strategy for secreted Signal sequence trap: a cloning strategy for secreted #cross-references MUID:93342488
#accession 159582
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02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
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#length 89 #molecular-weight 10032 #checksum 4622
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#title Signal sequence trap: a cloning strategy for secreted proteins and type I membrane proteins.
#accession 181182
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Y #Length 93 #molecular-weight 10666 #checksum 6309
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##molecule_type mRNA
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Pred. No. 2.50e-09;
0; Mismatches 0; Indels
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                                                                                                                                                            0; Gaps
                                                                                                                                                                                                                                                                                                                 #formal_name Canis lupus familiaris #common_name dog
19-May-1994 #sequence_revision 19-May-1994 #text_change
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#formal_name Ovis orientalis aries, Ovis ammon aries
#common_name domestic sheep
06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
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#length 93 #molecular-weight 10561 #checksum 5309
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CLASSIFICATION #superfamily beta-thromboglobulin
#Commany #length 101 #molecular-weight 11292 #checksum 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                       #title Cloning of a canine gene homologous to the human interleukin-8-encoding gene.
                                                                                                             Score 102; DB 2; Length 93;
Pred. No. 2.50e-09;
0; Mismatches 0; Indels
##residues 1-93 ##label RES
##cross-references GB:L12030; NID:g393181; PID:g393182
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Best Local Similarity 66.7%; Score 78; DB 2; Length 95;
Matches 8; Conservative 3; Mismatches 1; Indels
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Local Similarity 100.0%;
les 12; Conservative
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Immunol. Cell Biol. (1994) 72:398-405
Cloning, sequencing, expression and inflammatory activity in
skin of ovine interleukin-8.
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#formal_name Sus scrofa domestica #common_name domestic pig
02-Jun-1995 #text_change
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#formal_name_Ovis_sp. #common_name_sheep
21-Feb-1997 #sequence_revision_21-Feb-1997 #text_change
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CLASSIFICATION #superfamily beta-thromboglobulin
#length 103 #molecular-weight 11633 #checksum 8835
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#length 101 #molecular-weight 11292 #checksum 294
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Local Similarity 66.7%; Pred. No. 4.52e-04;
les 8; Conservative 3; Mismatches 1.
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Yoshimura, T.; Johnson, D.G.
J. Immunol. (1993) 151:6225-6236
CDNA cloning and expression of guinea pig neutrophil
attractant protein-1 (NAP-1): NAP-1 is highly conserved in
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                                                                                                                                 #authors Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.; #authors Kuijper, J.L.; Forstrom, J.W.; Martin, T.R.
#journal Biochemistry (1992) 31:10483-10490
#title Molecular cloubing of porcine alveolar macrophage-derived neutrophil chemotactic factors I and II; identification of porcine IL-8 and another intercrine-alpha protein.
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#formal_name Sus scrofa domestica #common_name domestic pig
30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
23-Feb-1996
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NCBIP:117416)
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Neutrophil attractant protein-1 - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996  #sequence_revision 02-Jul-1996  #text_change
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#length 101 #molecular-weight 11414 #checksum 2363
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#length 103 #molecular-weight 11677 #checksum 8904
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Pred. No. 1.17e-03;
3; Mismatches 1; Indels
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3; Mismatches 1; Indels
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##residues 1-103 ##label GOO
##experimental_source alveolar macrophage
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#cross-references MUID:94065176
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Best Local Similarity 66.7%;

Matches 8; Conservative
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REFERENCE

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Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
Mol. Cell. Biol. (1989) 9:4687-4695
The human homolog of the JE gene encodes a monocyte secretory
                                                                              Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.
Biochem. Biophys. Res. Commun. (1990) 169:346-351
Structure of human monocyte chemotactic protein gene and its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human monocyte chemoattractant protein-1 (MCP-1). Full-length CDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Furtiani, Y.; Nomura, H.; Notake, M.; Oyamada, Y.; Fukui, T.; Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K. Biochem. Blophys. Res. Commun. (1989) 159:249-25. Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman, M.I.; Leonard, E.J.
FEBS Lett. (1989) 244:487-493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
             A35474; A33476; S03339; I51841; A60299; A32300; A32396;
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PID:g386961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            #authors Yoshimura, T.; Leonard, E.J.
#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references MUID:92095166
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##molecule_type mRNA
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##cross-references GB:S71513; NID:g240867; PID:g240868
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##cross_references GB:X14768; NID:934513; PID:934514
##experimental_source glioma cell line U-105MG
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                                    A34561; I57488; JC1096
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#*residues 1-99 ##label SHY
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#cross-references MUID:90290466
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#cross references MUID:89153605
#accession S03339
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##Cross-references GB:M24545; NID:g187434; PID:g307163

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#journal Biochem. Biophys. Res. Commun. (1990) 167:904-909 | #title Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel | N-terminally processed form.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              #authors Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill,
J.F.; Kolattukudy, P.E.
#journal Mol. Cell. Biochem. (1993) 126:61-68
#title The expression of monocyte chemotactic protein (MCP-1) in
#cross_references MUID:94150478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                #product monocyte chemoattractant protein 1, short form
Robinson, E.A.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.; Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E. Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854 Complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune
                                                                                                                                                                                                                                                 Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van
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monocyte chemoattractant protein-1 precursor - pig
#formal_name Sus scrofa domestica #common_name domestic pig
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#modified_site pyrrolidone carboxylic acid (Gln) (in
#motor form) #status experimental,
#binding_site carbohydrate (Asn) (covalent) #status
predicted
#length 99 #modlecular-weight 110.5
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Chinese J. Microbiol. Immunol. (1994) 14:29-32
The PCR, cloning and sequencing of human monocyte
Chemoattractant protein-1 (MCP-1) gene.
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3; Mismatches 2; Indels
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#cross-references GB:S69738; NID:9545464; PID:9545465
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##residues 24-28,'Q',30-99 ##label YEQ
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#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage infi
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Local Similarity 58.3%;
es 7; Conservative
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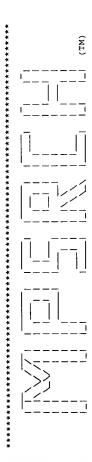
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#cross-references MUID:94338337
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#product monocyte chemoattractant protein-1 #status
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                                                                                               Scheit, K.H.
Biochem. Biophys. Res. Commun. (1994) 199:962-968
Biochem. biophys. Res. Commun. (1994) 199:962-968
Porcine luteal cells express monocyte chemoattractant
protein-1 (MCP-1): Analysis by polymerase chain reaction
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A novel neutrophil chemoattractant generated during an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    neutrophil attractant/activation protein-1
#formal_name Oryctolagus cuniculus #common_name domestic
                                                                           Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.
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ICATION #superfamily macrophage inflammatory protein
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Pred. No. 3.00e-03;
4; Mismatches 2;
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JC2336 #type complete monocyte chemoatractant protein-1 - bovine monocyte chemoatractant protein-1 - bovine #common_name zebu cattle #formal_name Bos primigenius indicus #common_name zebu cattle 20-Feb-1995 #text_change
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#fitle Neutrophil attractation/Activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.
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Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
Characterization of the bovine monocyte chemoattractant
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Search completed: Fri Feb 4 17:03:37 2000 Job time : 22 secs.



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protein - protein database search, using Smith-Waterman algorithm MPsrch_pp

Fri Feb 4 17:02:38 2000; MasPar time 3.51 Seconds 72.732 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-38 (1-12) from US09150813.pep 102 Title:

QVCIDPKLKWIQ 12 Description: Perfect Score: Sequence:

PAM 150 Gap 15 Scoring table:

170751 seqs, 21266608 residues Searched:

Minimum Match 0% Listing first 45 summaries Post-processing:

a-geneseq35 Database:

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Mean 19.335; Variance 66.726; scale 0.290

Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match Length	ength	DB	ID	Description	Pred. No.
,				1			
1	102	100.0	67	31	W50760	Peptide which binds t	2.78e-03
7	102	100.0	99	31	W50761	Peptide which binds t	2.78e-03
m	102	100.0	72	31	W50762	Peptide which binds t	2.78e-03
4	102	100.0	73	31	W50763	Peptide which binds t	2.78e-03
Ŋ	102	100.0	8	13	R75419	Human SDF-1-alpha.	2.78e-03
ø	102	100.0	8	31	W50764	Peptide #1.	2.78e-03
7	102	100.0	89	12	R70994	Protein encoded by cD	2.78e-03
80	102	100.0	93	31	W50765	Peptide #2.	2.78e-03
6	102	100.0	93	31	W50766	Human SDF-1 which is	2.78e-03
10	102	100.0	93	13	R75420	Human SDF-1-beta.	2.78e-03
11	102	100.0	326	35	W76221	Human chemokine SDF-1	2.78e-03
12	102	100.0	328	35	W76220	Human chemokine SDF-1	2.78e-03
13	92	74.5	66	~	R06398	Human MCF precursor.	1.42e+00
14	75	73.5	99	24	W13598	Monocyte chemoattract	1.80e+00
15	75	73.5	67	24	W13599	Monocyte chemoattract	1.80e+00
16	75	73.5	68	24	W13597	Monocyte chemoattract	1.80e+00

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7te chemoai 8) MCP-1. Dhage chemote (te chemote e chemote e chemote e chemote properties e chemote for chemote for chemote monocyte chemote monocyte chemokine	Human monocyte chemoa
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ALIGNMENTS

human stronmal cell-derived chemokine, SDF-1 - useful for treating
human stronmal cell-derived chemokine, SDF-1 - useful for treating
human immunodeficiency virus infection

Claim 2: Page 29; 48pp; French.

The invention relates to peptides which bind to a cellular receptor for
cx chemokines, namely the CXCX4 receptor (also known as leukocyteexpressed transmembrane domain receptor), especially where the
cxt shuman chemokine SDF-1. The peptide can be used to treat or
peptide is human chemokine SDF-1. The peptide can be used to treat or
creceptor antagonists, inmunotherapy agents, agents for treating HIVcascolated opportunistic infections and/or other CXC or Cc chemokines,
cascolated opportunistic infections and/or other CXC or Cc chemokines,
cascolated opportunistic infections and/or other CXC or Cc chemokines,
cascolated opportunistic infections and/or other CXC or Cc chemokines,
cascolated operations and the context of the peptide can be
used to detect anti-SDF-1 antibodies in biological fluids. This
sequence represents a specifically claimed peptide which binds to the ö 27-JUL-1998 (first entry)
Peptide which binds to CXCR4 receptor and is useful for treating HIV.
Stromal cell-derived chemokine; SDF-1; human immunodeficiency virus;
HIV; CXCR4 receptor; leukocyte-expressed transmembrane domain receptor.
HOMO sapiens.
FR2751658-A1. 30-JAN-1998. 26-JUL-1996; 009477. 26-JUL-1996; FR-0009477. (INSP) INSP PASTEUR. Arenzana SF, Baggiolini M, Clark LI, Moser B, Virelizier JL; WPI; 98-123039/12. .r 1 W50760 standard; peptide; 67 AA. 100.08; Query Match Best Local Similarity 100.0%; 67 AA; CXCR4 receptor 27-JUL-1998 Sequence W50760;

Gaps ö Score 102, DB 31; Length 67; Pred. No. 2.78e-03; 0; Mismatches 0; Indels Conservative Matches

1 QVCIDPKLKWIQ 12 48 qvcidpklkwig 59 g ò

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Arenzana SF. Baggiolini M, Clark LI, Moser B, Virelizier JL;
WFI; 98-123039/12.

WFI; 98-123039/12.

WFI; 98-123039/12.

WFI; 98-123039/12.

WFI; 98-123039/12.

Human strondl cell-derived chemokine, SDF-1 - useful for treating human jarnunodeficiency virus infection.

Claim 5; Page 29; 48pp; French.

Claim 5; Page 29; 48pp; French.

CX chemokines, namely the CXCR4 receptor (also known as leukocyterox chemokines, namely the CXCR4 receptor; especially where the experience of transmembrane domain receptor; especially where the peptide is human chemokine SDF-1. The peptide can be used to treat or prevent HIV infections, optionally together with reverse transcriptase inhibitors, viral protease inhibitors, soluble CD4 receptors, CD4 associated opportunistic infections and/or other CXC or C chemokines, especially RANTES, MIPI- alpha, MIPI- beta or MCPI. The peptide can be sequence represents a specifically claimed peptide which binds to the converse of the converse o
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Human stromal cell-derived chemokine, SDF-1 - useful for treating human stromal cell-derived chemokine, SDF-1 - useful for treating human stromal cell-derived chemokine, SDF-1 - useful for treating human immunodeficiency virus infection.

The invention relates to peptides which bind to a cellular receptor for CXC chemokines, namely the CXCR4 receptor (also known as leukocyte-corporations), especially where the expressed transmembrane domain receptor), especially where the peptide is human chemokine SDF-1. The peptide can be used to treat or prevent HIV infections, optionally together with reverse transcriptase inhibitors, viral protease inhibitors, soluble CD4 receptors, CD4 sosociated opportunistic infections and/or other CXC or CC chemokines, especially RANTES, MIPI- alpha, MIPI- beta or MCPI. The peptide can be sequence represents a specifically claimed peptide which binds to the
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                                                                                                                  27-JUL-1998 (first entry)
Peptide which binds to CXCR4 receptor and is useful for treating HIV.
Stromal cell-derived chemokine; SDF-1; human immunodeficiency virus;
HIV; CXCR4 receptor; leukocyte-expressed transmembrane domain receptor.
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                                    W50761 standard; peptide; 68 AA.
W50761;
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W50762 standard; peptide; 72 AA.
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Best Local Similarity 100.0%;
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26-JUL-1996; FR-009477.
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26-JUL-1996; 009477.
26-JUL-1996; FR-009477.
(INSP ) INST PASTEUR.
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FR2751658-A1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                             human immunodeficiency virus infection
Claim 5; Page 29; 48pp; French.
CC chemokines, namely the CXCR4 receptor (also known as leukocyte-expressed transmembrane domain receptor), especially where the peptide is human chemokine SDF-1. The peptide can be used to treat or prevent HIV infections, optionally together with reverse transcriptase inhibitors, viral protease inhibitors, soluble CD4 receptors, CD4 associated opportunistic infections and/or other CXC or CC chemokines, especially RANTES, MIP1- alpha 'MP1- beta or MCP1. The peptide can be used to detect anti-SDF-1 antibodies in biological fluids. This
                                                                                                                                                                                                                  27-JUL-1998 (first entry)
Peptide which binds to CXCR4 receptor and is useful for treating HIV.
Stromal cell-derived chemokine; SDF-1; human immunodeficiency virus;
HIV; CXCR4 receptor; leukocyte-expressed transmembrane domain receptor.
                                                  Gaps
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15-APR-1995.
12-0CT-1994, 17-280505.
(ONOY ) ONO PHARM CO LTD.
HOD!O T, Shirozu M, Tada H;
WPI; 95-207311/28.
Polypeptide(s) used for treating diseases relating to undergrown or abnormal proliferation of haematopoietic cells - e.g. inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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Human stromal cell-derived chemokine, SDF-1 - useful for treating
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30-7AN-1998.
26-JUL-1996; 009477.
26-JUL-1996; FR-009477.
(INSP.) INST PASTEUR.
WPI: 98-123039/I2.
   Score 102; DB 31; Length 72;
Pred. No. 2.78e-03;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 100.0%; Score 102; DB 31; Length 73; Best Local Similarity 100.0%; Pred. No. 2.78e-03; Matches 12; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SDF-1-alpha; stromal derived factor; hematopoietic cell; inflammatory disease; infectious disease; AIDS; neurodegenerative disease.
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                                                                                                                                                                                  W50763 standard; peptide; 73 AA.
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R75419 standard; Protein; 89 AA.
Best Local Similarity 100.08;
Matches 12; Conservation
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                                                                            48 gvcidpklkwig 59
                                                                                                             1 QVCIDPKLKWIQ 12
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                                                                                                                                                                                                   W50763;
27-JUL-1998
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infections.
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protein
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     PT Human stromal cell-derived chemokine, SDF-1 - useful for treating pr human stromal cell-derived chemokine, SDF-1 - useful for treating pr human immunodeficiency virus infection

PS Claim 10; Page 30; 48pp; French.

CC The invention relates to peptides which bind to a cellular receptor for cxC chemokines, namely the CXCR4 receptor; especially where the expressed transmembrane domain receptor), especially where the cxpressed transmembrane and sDF-1. The peptide can be used to treat or peptide is human chemokine SDF-1. The peptide can be used to treat or cc prevent HIV infections, optionally together with reverse transcriptase prevent HIV infections, optionally together with reverse transcriptase conhibitors, viral processe inhibitors, soluble CD4 receptors, CD
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Protein encoded by cDNA derived from mouse stroma; cell line; ST2, primer; polymerase chain reaction; amplify; PCR; linker; plasmid; expression vector; pSRT; infection; transformation; E.coli DH5 alpha; cDNA library; signal peptide;
     diseases, infectious diseases, AIDS or neuro:degenerative diseases claim 2: Page 22: 43pp; English.

A cDNA library prepared from human pro-B cell line FLEB14 cells was soreened with 32P-labeled mouse SDF-1-alpha cDNA. A positive clone contained an insert of 1.9 kb (Q74089), including an ORF (Q74088) encoding human SDF-1-alpha (R75419). Recombinant hSDF-1-alpha was produced in E. coli and COS cells.
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WPI; 98-123039/12.
                                                                                                                                                                                                                       Score 102; DB 13; Length 89;
Pred. No. 2.78e-03;
0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                          NSO764 standard; peptide; 89 AA.
                                                                                                                                                                                                                                      Query Match
Best Local Similarity 100.0%;
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                                                                                                                                                                                                                                                                                      Conservative
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26-JUL-1996; FR-009477.
(INSP) INST PASTEUR.
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Human stromal cell-derived chemokine, SDF-1 - useful for treating
Human stromal cell-derived chemokine, SDF-1 - useful for treating
Human stromal cell-derived chemokine, special for treating
T claim 10; Page 31; 48pp; French.
C claim 10; Page 31; 48pp; French.
C The invention relates to peptides which bind to a cellular receptor for
The invention relates to peptides which bind to a cellular receptor for
C concomines, named) the CXRA receptor; especially where the
C cxc chemokines, named admain receptor), especially where the
C expressed transmembrane domain receptor), especially where the
C prevent HIV infections, optionally together with reverse transcriptase
C prevent HIV infections, optionally together with reverse transcriptase
C inhibitors, viral protease inhibitors, soluble CDA receptors, CDA
C inhibitors, viral protease inhibitors, soluble CDA receptors, CDA
C inhibitors, viral protease inhibitors, soluble CDA receptors, CDA
C second antagonists, immunotherapy agents, agents for treating HIV-
C receptor antagonists, immunotherapy agents, agents COA CC chemokines,
C associated opportunistic infections and/or other CXC or CC chemokines,
C sepecially RANTES, MIPI- alpha, MIPI- beta or MCPI. The peptides
C used to detect anti-SDF-1 antibodies in biological fluids. Peptides
C of the invention include sequences containing at least 50 per cent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       claim 3; Page 13-14; 26pp; English.

Claim 3; Page 13-14; 26pp; English.

This cDNA which was derived from the mouse strong encoded by CDNA which was isolated using the strong cell line, ST2. This CDNA sequence was isolated using the strong cell line sT2.

Total RNA was extracted from ST2 and using a random hexmaer as a primer, single stranded DNA was Synthesised and a random hexmaer as a primer, single stranded DNA was synthesised using the GEORI was annealed, and double stranded CDNA was synthesised using the same primer. The resulting cDNA was fragmented and CNDAs of 200-500 bp same primer. The resulting cDNA was fragmented and CNDAs of 200-500 bp were isolated. After Dlunt-ending, a linker conty. a SacI site was ligated and the CDNAs again fractionated. Two primers, one with an ligated and the CDNAs again fractionated. Two primers, one with an ECORI site and one with a SacI site were then used for PCR. The ECORI and LINKER CDNAS of 200-500 amplified CDNA was digested with ECORI and SacI and CDNAS of 200-500 amplified CDNA was digested with ECORI and ADARAS of 200-500 amplified CDNA was the standard and the CDNAS of 200-500 amplified CDNA was digested with ECORI and ADARAS of 200-500 amplified CDNA was the standard and the CDNAS of 200-500 amplified CDNA was digested with ECORI and SCORI and ADARAS OF 200-500 amplified CDNA was digested with a scoria standard and and and adapted and the CDNAS of 200-500 amplified CDNA was digested with a scoria standard and and adapted and the CDNAS of 200-500 amplified CDNA was digested with a scoria standard and and and adapted and adapted and and adapted and a
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Construction of a cDNA library which has selectivity for signal peptides - and novel peptide identified using the process, having application in the treatment of anaemia, leukopenia and
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26-JUL-1996; R-009477.
26-JUL-1996; FR-009477.
10189 | INST PASTEUR.
Arenzana SF, Baggiolini M, Clark LI, Moser B, Virelizier JL;
Arenzana SF, Baggiolini M, Clark LI, Moser B, Virelizier JL;
WPI: 98-123039/12.
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100.0%; Score 102; DB 12; Length 89;
Best Local Similarity 100.0%; Pred. No. 2.78e-03;
Matches 12; Conservative 0; Mismatches 0; Indels
20..89 /note= "Protein N-terminal fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        W50765 standard; peptide; 93 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tashiro K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-JUL-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ONOY ) ONO PHARM CO LTD.
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14-JAN-1994; 300267
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FR2751658-A1.
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N-PSDB; Q74090; Q74091.

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Figure 5: 48pp: French.

The invention relates to peptides which bind to a cellular receptor for the invention relates to peptides which bind to a cellular receptor for CXC chemokines, namely the CXCR4 receptor (also known as leukocytecxed transmembrane domain receptor), especially where the peptide is human chemokine SDF-1. The peptide can be used to treat or prevent HIV infections, optionally together with reverse transcriptase receptor antagonists, immunotherapy agents, agents CD4 associated opportunistic infections and/or other CXC or CC chemokines, cused to detect anti-SDF-1 antibodies in biological fluids. This can be Sequence represents human SDF-1.
                                                                                                     ö
                                                                                                                                                                                                                77-JUL-1998 (first entry)
Human SDF-1 which is useful for treating HIV.
Stromal cell-derived chemckine; SDF-1; human immunodeficiency virus;
HIV; CXCR4 receptor; leukocyte-expressed transmembrane domain receptor.
                                                                                                   Gaps
 identical amino acid residues to W50760 with the exception of the sequences W50764-5.
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Arenzana SF, Baggiolini M, Clark LI, Moser B, Virelizier JL;
WPI: 98-123039/12.
                                                                    Length 93;
                                                             Score 102; DB 31; Length 93
Pred. No. 2.78e-03;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 102; DB 31; Length 93;
Pred. No. 2.78e-03;
0; Mismatches 0; Indels
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                                                                                                                                                                                        W50766 standard; peptide; 93 AA.
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Local Similarity 100.0%;
es 12; Conservative
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Best Local Similarity 100.0%;
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26-JUL-1996; FR-009477.
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identical
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                                                       Query Match
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1..21 /label= Sig_peptide Location/Qualifiers

CA2117953-A.

peptide

12-0cT-1994, 117953. 14-0cT-1993, JP-280505. (ONOY) ONO PHARM CO LTD. Honjo T, Shirozu M, Tada H; WPI; 95-207311/28.

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Construct planted to neterologous polypeptide, used for, e.g. champtactic recruitment of migratory cells.

This sequence represents a human chemokine SDF-lalpha domain, isolated construct comprising an isolated polynucieotide encoding a chimeric construct comprises at least 1 chemokine polypeptide covalently construct comprises at least 1 chemokine polypeptide covalently attached to at least 1 heterologous polypeptide. By including a chimeric construct comprises at least 1 chemokine polypeptides covalently will have longer and increased biological activity and can direct the chemokine to a particular site. The chimeric polypeptides con also be constituted to a fact the chemokine receptors. They can be used casimost to inhibit or desenitise chemokine receptors. They can be used cartinage, ligament or tendon, for recruiting transplanted bone marrow colls to bone marrow, or for treating or preventing inflammatory or calls to bone marrow, or for treating or preventing inflammatory or continued the activity of antigen presenting cells and for treating or preventing HTV infection. Neutralising antibodies binding to the chimeric conscituted with the chemokine corresponding to the chemokine domain of sequence also polypeptide and also in the treatment of some forms of sequence also be useful therespectics for both conditions of sequence also bards and also in the creatment of some forms of sequence also be necessarily or the chemokine domain of sequence also be necessarily or the chemokine domain of sequence also be necessarily and the chemokine to the chemokine of the chemokine of the chemokine of the chemokine to the chemokine forms of the chemokine to the chemokine of the chemokine forms of the chemokine to the chemokine forms of the chemokine to the chemokine of the chemokine to the chemokine forms of the chemokine to the chemokine
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Human chemokine SDF-lalpha domain protein from clone SK2-2.
Chemokine, SDF-lalpha, chimeric; human; heterologous protein; inhibitor; receptor; chemotaxis; migratory cell; anglogenesis; bone; regeneration; autoimmune disorder; recein bone marrow; transplant; inflammation; Hum, human immunodeficiency virus; therapy; prevention.
               Polypeptide(s) used for treating diseases relating to undergrown or diseases, infections diseases, AIDS or neuro: degenerative diseases (laim 12: page 26-27; 43pp; English.

Claim 12: page 26-27; 43pp; English.

A oDNA library prepared from human pro-B cell line FLEBH4 cells was contained an insert of 3.5 kb (074091), including an ONF (074090) produced in E. cell and COS cells.
                                                                                                                                                                                                                                                                                                                                                                    0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New chimeric polypeptide(s) - comprise chemokine polypeptide covalently linked to heterologous polypeptide, used for, e.g.
                                                                                                                                                                                                                                                                                                   Score 102; DB 13; Length 93;
Pred. No. 2.78e-03;
0; Mismatches 0; Indels
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31..326
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W76221 standard; Protein; 326 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /label= signal
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Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                          12; Conservative
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WPI; 98-495387/42.
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28-FEB-1997; US-808720.
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Location/Qualifiers
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/label=mature MCF
                                                                                                                                                                                                                                    R06398 standard; protein; 99 AA.
                                                                                                                                                                                                                                                                                                                                                                                 'note="Claim 1"
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Best Local Similarity 58.3%;
Matches 7; Conservative
                                                                  100.0%;
Local Similarity 100.0%;
les 12; Conservative
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26-JUL-1990.
02-JAN-1990; U00004.
01-JAN-1989; JP-000065.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99 AA
                                        328 AA;
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                                                                                                                                                                                                                                                                                                                           Homo sapiens.
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                                                                         Query Match
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88888
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Provalently linked to heterologous polypeptide, used for, e.g.

covalently linked to heterologous polypeptide, used for, e.g.

chemotactic recruitment of migratory cells

procedured to recruitment of migratory cells

Claim 13h; Page 43-44; 69pp; English.

Claim 21h; Page 43-44; 69pp; English.

Crasquence represents a human chemokine spring in the production

from cDNA clones 51-2 and 51-3. This sequence is used in the production

from cDNA clones 51-2 and 51-3. This sequence is used in the production

of a construct comprises at least 1 chemokine polypeptide covalently

conserved to a least 1 heterologous polypeptide. By including a cherologous protein in the construction, the chimeric polypeptides

contact least 1 heterologous polypeptides and direct the increased biological activity and can direct the chemokine to a particular site. The chimeric polypeptides can also be designed to inhibit or desensitise chemokine receptors. They can be used designed to inhibiting angiogenesis, for regeneration of bone,

constructed to continue to a recruitment of migratory cells, e.g. for to affect the chemotactic recruitment of migratory cells, e.g. for cattlinge, ligament or tendon, for recruiting transplanted bone marrow cartillade, ligament or tendon, for recruiting transplanted bone marrow cartillade, ligament or tendon, for treating or preventing inflammatory or cells to bone marrow, or for treating or preventing inflammatory or cells to bone marrow, or for treating or preventing inflammatory or cells to enhance the activity of antigen presenting cells and for treating or enhance the activity of antigen presenting cells and for treating or the chimeric propertion wenture and an activity of antigen presenting antibodies binding to the chimeric propertion of propertions of the chimeric propertion of propertio
                                                                                                                                                                                                                   02-DEC-1998 (first entry)

Human chemokine SDF-1alpha domain protein from clones S1-2/S1-3.

Human chemokine; SDF-1alpha; chimeric; human; heterologous protein; inhibitor;

Chemokine; SDF-1alpha; chimeric; human; heterologous protein; inhibitor;

receptor; chemotraxis; migratory cell; angiogenesis; bone; regeneration;

cartilage; ligament; tendon; bone marrow; transplant; inflammation;

autoimmune disorder; vaccine adjuvant; antigen presenting cell; cancer;

HIV; human immunodeficiency virus; therapy; prevention.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /label= SDF-lalpha
/note= "Chemokine domain. Putative start of mature
protein"
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/note= "Chemokine domain. Putative start of mature
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                                                      Gaps
                                                    ..
0
                     Score 102; DB 35; Length 326;
Pred. No. 2.78e-03;
0; Mismatches 0; Indels C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "putative signal peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note- "putative signal peptide"
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                                                                                                                                                                                        W76220 standard; Protein; 328 AA.
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                            Query Match
Best Local Similarity 100.0%;
Matches 12; Conservative
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                                                                                               67 gvcidpklkwig 78
                                                                                                                  1 QVCIDPKLKWIQ 12
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                                                                                                                                                                                                                                                                                                                                                                 Synthetic
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Human monocyte chemotactic factor type polypeptide and DNA Human monocyte chemotactic factor type polypeptide and DNA encoding it - useful as antibacterial and antitumour agents.

Claim 2: Page 25: 27pp; English.

Claim 2: Page 25: 27pp; English.

The sequence was deduced from Hum.

The sequence was deduced from the RNA extracted from the recombinant plasmids, PHMCF7, PHMCF2 and PHMCF29 which there isolated from a cDNA library prepd. from RNA extracted from vere isolated from a cDNA library prepd. from RNA extracted from vere isolated from a cDNA library prepd. Grand RNA extracted from vertors. In plasmids pHMCF7 and PHMCF29 bases 105 and 226 were cortors. In plasmids pHMCF7 and PHMCF29 bases 105 and 226 were cortors. In plasmids pHMCF7 and A resp. The A at posn.

The protein is therefore not determined and may be citer Ala or Thr. The protein may be produced by recombinant of the precential pacterial and is useful as a drug for treatment of cortors.
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Monocyte chemoattractant protein analogue MCP-1 (10-76).
Truncated monocyte chemoattractant protein-1; inhibitor:
receptor binding; anti inflammatory; basophil; lymphocyte; allergy; chronic inflammatory disease; arthritis; arteriosclerosis;
associated with the chemokine corresponding to the chemokine domain of the chimeric polypeptide and also in the treatment of some forms of cancer where apportmal expression of the chemokine is involved.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human MCF precursor.
Monocyte chemotactic factor; antibacterial; antitumour; cancer.
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                                                                                                                                                                                                             Length 328;
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3; Mismatches 2; Indels
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                                                                                                                                                                                                             Score 102; DB 35; Length 32
Pred. No. 2.78e-03;
0; Mismatches 0; Indels
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Disclosure: Page 5: 27pp; English.

Cremontrarent protein-1 (MCP-1). The analogue, Which lacks the chemostractarent protein-1 (MCP-1). The analogue, which lacks the chemostractarent protein-1 (MCP-1). The analogue, which lacks the as in lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block of monocytes and other cells e.g. basophils and lymphocytes into inflammatory diseases. MCP-1 has been implicated in allergic and chronic confinamatory diseases e.g. arthritis, arteriosclerosis and chronic diseases. The analogue competes more effectively with MCP-1 for binding CC diseases. The analogue competes more effectively with MCP-1 for binding CC providing 50% inhibition of binding at a 25:1 ratio or less, compared Sciences 66 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present sequence represents an analogue, MCP-1 (11-76), of monocyte changes a sequence represents an analogue, which lacks the changestrant protein-1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits bidding to a MCP-1 the effects of MCP-1 which is an inflammatory agent to block of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic diseases. The analogue competes more effectively with MCP-1 for binding providing 50% inhibition of binding at a 25:1 ratio or less, compared sequence 67 AA;
                                                                                       N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) lacks MCP-1 activity and inhibits receptor binding, useful as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) - lacks MCP-1 activity and inhibits receptor binding, useful as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Monocyte chemoattractant protein analogue MCP-1 (11-76). Truncated monocyte chemoattractant protein.1; inhibitor; receptor binding; anti inflammatory; basophil; lymphocyte; allergy; chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2; Indels
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Pred. No. 1.80e+00;
3; Mismatches 2; Indels
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Disclosure; Page 5; 27pp; English.
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W13599 standard; peptide; 67 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Y Match 73.5%;
Local Similarity 58.3%;
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19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
                                                                                                                             anti-inflammatory agent
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19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
(LEWI/) LEWIS I.
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WPI; 97-165844/16.
                                    (LEWI/) LEWIS I.
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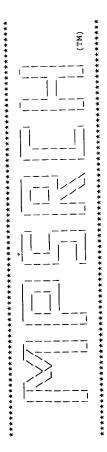
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Search completed: Fri Feb 4 17:02:58 2000 Job time: 20 secs. Search



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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Fri Feb 4 17:09:44 2000; MasPar time 2.49 Seconds 136.407 Million cell updates/sec Tabular output not generated.

Title: >US-09-150-813-40
Description: (1-12) from US09150813.pep
Perfect Score: 99

1 ELCLDPKENWVQ 12

Scoring table: PAM 150

Sequence:

Searched: 77977 seqs, 28268293 residues

Post-processing: Minimum Match 0% Listing first 45 summaries

Database: swiss-prot37 1:swissprot Statistics: Mean 26.183; Variance 34.228; scale 0.765

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Pred. No.	5.80e-10	5.72e-09	3.12e-08	3.12e-08	2.90e-07	2.90e-07	2.90e-07	1.51e-06	1.51e - 06	1.31e - 05	6.44e - 05	3.08e-04	3.08e-04	5.17e-04	5.17e-04	8.63e-04	1.44e - 03	2.38e-03	2.38e-03	2.38e-03	3.936-03		00000	3.936-03
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ALIGNMENTS

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                    SUBMITTED (JAN-1993) TO EMBL/GENBANK/DDBJ DATA BANKS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRUCTURE BY NMR OF COMPLEX TO RECEPTOR. SKELTON N.J., QUAN C., REILLY D., LOWMAN H. SUBMITTED (DEC-1998) TO THE PDB DATA BANK.
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SEQUENCE FROM N.A.
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MEDLINE; 88162914.
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                                             SEQUENCE OF 23-46
                                                           89246368.
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YAMADA M., MATSUSHIMA K., EDWARDS B.F., CLORE G.M., GRONENBORN A.M., "Crystal structure of interleukin 8: symbiosis of NMR and
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"Interleukinn.B, a chemotactic and inflammatory cytokine.";
"Interleukinn.B, a chemotactic and inflammatory cytokine.";
"Interleukinn.B, and "Interleukinn";
"BASOPHILS, AND TOELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN RESPONSE TO AN INFLAMMATORY STIMULUS.
                                                                                                                                                                                                                                                               "The neutrophil-activating proteins interleukin 8 and beta-thromboglobulin: in vitro and in vivo comparison of NH2-terminally processed forms.";
                                                                                                                                                                                                  VAN DAMME J., RAMPART M., CONING R., DECOCK B., VAN OSSELAER N.,
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PFAM; PF00048; 118; 1
CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VAN DAMME J., VAN BEEUMEN J., CONINGS R., DECOCK B., BILLIAU A., "purification of granulocyte chemotactic peptide/interleukin-8 reveals N-terminal sequence heterogeneity similar to that of beta-thromboglobulin."
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EMBL, M17017, G179580, -..
EMBL, M26383, G188628, -..
EMBL, M28130, G186368, -..
EMBL, D14283, G219916, ...
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IIL8; 15-JAN-91.
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11KL; 15-OCT-95.
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146930;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PDB; 11KM; J
PDB; 11LP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        21L8;
31L8;
                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REVIEW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PIR;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        interleukin 8.";
BIOCHEM. J. 271:797-801(1990).
-!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
-!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS IN UNDIVED IN BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN RESPONSE TO AN INFLAMMATORY STIMULUS.
INTERLEUKIN-8.
ONE OR MORE OF THESE RESIDUES ARE MISSING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 23-53.
STRAIN-NOW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY;
MEDLINE; 91058518.
BEAUBREN B.C., COLLINS P.D., JOSE P.J., TOTIT N.F., HSUAN J.,
WATERFIELD M.D., WILLIAMS T.J.;
"A movel neutrophil chemoattractant generated during an inflammatory
reaction in the rabbit peritoneal cavity in vivo. Purification,
partial amino acid sequence and structural relationship to
                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                           01-FEB-1991 (REL. 17, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-NOY-1995 (REL. 32, LAST ANNOTATION UPDATE)
INTERLEUGIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT/ACTIVATION PROTEIN-1) (NAP-1) (PERMEABILITY FACTOR 1) (RPF1).
                                                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORYCTOLAGUS CUNICULUS (RABBIT).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
LAGOMORPHA; LEPORIDAE; ORYCTOLAGUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                YOSHIMURA T., YUHKI N.;
"Neutrophil attractant/activation protein-1 and monocyte
"Nentrophil attractant protein-1 in rabbit. cDNA cloning and their
expression in spleen cells.";
J. IMMUNOL. 146:3483-3488(1991).
                                IN SOME MATURE FORMS OF IL-8.
                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                              Score 99; DB 1; Length 99; Pred. No. 5.80e-10;
                                                                                       R -> L (IN REF. 7).
                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIR. S13052; S13052.
PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; 118; 1.
HSSP; P10145; 11KL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
MEDLINE; 91225489.
                                                                                                                                                                                                                                                                                                                                                                                  PRT;
                                                                                                                                                              Note: remainder of annotations omitted.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; M57439; G165553; -. PTR: S13052: S13052.
                                                                                                                                                                                                      100.08;
                                                                                                                                                                                                                   Best Local Similarity 100.0%;
Matches 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                         61
77
53
48
55
                                                                                                                                                                                                                                                                         75 ELCLDPKENWVQ 86
                                                                                                                                                                                                                                                                                                           1 ELCLDPKENWVQ 12
                                                         34
36
46
49
                                                                                                                                                                                                                                                                                                                                                                                    IL8_RABIT
                                                                            DISULFID
                                                           DISULFID
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       CHAIN
PROPEP
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                                                                                                                  HELIX
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INFLAMMATION 11-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
-!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
-!- BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
RESPONDE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
-!- SUBUNT: HOMODIMER (BY SIMILARITY).
-!- SUBUNT: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
-:- C-X-C) (CHEMOKINE CXC).
                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Comparative sequence analysis of cytokine genes from human and
                                                                                                                                                                                                                                                                                                                                                                                                 MACACA NEMESTRINA (PIG-TAILED MACAQUE).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; CERCOPITHECIDAE; CERCOPITHECINAE; MACACA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VILLINGER F.J., BRAR S.S., MAYNE A.E., CHIKKALA N., ANSARI A.A.
                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
SECTICES—M.WILATTA: TISSUE-BLOOD;
MEDLINE: 95355132.
MINNERLY J.C., BAGANOFF M.P., DEPPELER C.L., KELLER B.T.,
MINNERLY J.C., PRETLAND D.J., BOLANOWSKI M.A.;
RAPP S.R., WIDOMSKI D.L., FRETLAND D.J., BOLANOWSKI M.A.;
Identification and characterization of rhesus macaque
interleukin-8.";
                                                                                                                       Length 101;
                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
INFLAMMATORY RESPONSE; SIGNAL.
                                            BY SIMILARITY.
BY SIMILARITY.
K -> I (IN REF. 2).
7; CB32CC30 CRC32;
                                                                                                                  Score 95; DB 1; Lk
Pred. No. 5.72e-09;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                            01-02T-1996 (REL. 34, CREATED)
01-02T-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-02T-1996 (REL. 34, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                              101 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; U19851; G644820; -.
EMBL; S78555; G1042228; -.
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
                               INTERLEUKIN-8.
                                                                                                                                                                                                                                                                                                                                                                                       MACACA MULATTA (RHESUS MACAQUE), AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IMMUNOL. 155:3946-3954(1995).
                                                                                                                                                                                                                                                                                                                                                          INTERLEUKIN-8 PRECURSOR (IL-8).
                22
101 IN
61 BN
77 BN
50 K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; U19849; G644816; -.
                                                                                                                            96.0%;
                                                                                                                                         larity 91.7%;
Conservative
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61
77
                                                                                                                                                                                                                                                                                STANDARD;
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      CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                      75 ELCLDPKEKWVQ 86
                                                                                                                                                                                                                     1 ELCLDPKENWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HSSP; P10145; 11L8
                                                                                                                                            Local Similarity
nes 11; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                              101 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nonhuman primates
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE; 96003435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IISSUE-BLOOD
                                                                                                                                                                                                                                                                                                                              01-OCT-1996
01-OCT-1996
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DISULFID
DISULFID
                                                                                                                                                                                                                                                                                   IL8_MACMU
                                                                              CONFLICT
                                                                                                                             Query Match
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                                                    DISULFID
                                                                  DISULFID
                      SIGNAL
                                       CHAIN
                                                                                                                                                           Matches
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SEQUENCE

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IL8_CANFA
P41324;
                                                                                                                                                    MEDLINE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the PMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed 'Usage by and for commercial or send an email to license agreement (See http://www.isb-sib.ch/announce/
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                                                                                                                                                                                                                                                                                                              J. IMMUNOL. 155:3946-3954(1995).
-!- FUNCTION: 1L-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONGCYTES. IT IS ALSO INVOLVED IN
RESPONSE TO AN INFLAMMATORY STIMULUS (BY SIMILARITY).
-!- SUBUNT: HOWODIMER (BY SIMILARITY).
-!- SUBUNT: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
--- CYC) (CHEMOKINE CXC).
                                                 Gaps
                                                                                                                                                                                                    CERCOCEBUS TORQUATUS ATYS (RED-CROWNED MANGABEY) (SOOTY MANGABEY).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; CERCOPITHECIDAE; CERCOPITHECINAE; CERCOCEBUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                              VILLINGER F.J., BRAR S.S., MAYNE A.E., CHIKKALA N., ANSARI A.A., "Comparative sequence analysis of cytokine genes from human and
                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ;
0
                   Score 92; DB 1; Length 101;
Pred. No. 3.12e-08;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 92; DB 1; Length 101;
Pred. No. 3.12e-08;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
101 AA; 11320 MW; 77D78AA0 CRC32;
                                                                                                                                               01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY.
BY SIMILARITY.
7 47F1BF00 CRC32;
                                                                                                                                 101 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       P36925;
01-JUN-1994 (REL. 29, CREATED)
01-JUN-1994 (REL. 32, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
INTERLEUKIN-8 PRECURSOR (IL-8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT; 101 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BY SIMILARITY INTERLEUKIN-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; U19839; G644796; -.
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
                                                                                                                                PRT;
                                                                                                                                                                               INTERLEUKIN-8 PRECURSOR (IL-8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   101 AA; 11309 MW;
                    92.9%;
ilarity 91.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Match 92.9%;
Local Similarity 91.7%;
                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PFAM; PF00048; i18; 1.
HSSP; P10145; IIL8.
                                                            75 ELCLDPKEPWVQ 86
                                                                          1 ELCLDPKENWVO 12
                            Best Local Similarity
Matches 11; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              75 ELCLDPKEPWVQ 86
                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                      nonhuman primates.
                                                                                                                                                                                                                                                          TISSUE-BLOOD;
MEDLINE; 96003435
                                                                                                                    LT 4
IL8_CERTO
P46653;
                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIGNAL
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                                                                                                                 RESULT
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                                                                                                                                                                                                                                                                         OVIS ARIES (SHEED).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; CAPRINAE; OVIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
MEDLINE; 94010328.
ISHIRAWA J., SUZUKI S., HOTTA K., HIROTA Y., MIZUNO S., SUZUKI K.;
"Cloning of a canine gene homologous to the human interleukin-8-encoding gene.";
                                                                                                                               LEGASTELOIS I., GREENLAND T., ARNAUD P., MORNEX J.F., CORDIER G
"Sequencing of the ovine interleukin-8-encoding cDNA using the
Polymerase chain reaction.";
GENE 150:367-369(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ó
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CARNIYORA; FISSIPEDIA; CANIDAE; CANIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 88; DB 1; Length 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. 2.90e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BY SIMILARITY.
BY SIMILARITY.
; 5A574527 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-FEB-1995 (REL. 31, CREATED)
01-FEB-1995 (REL. 31, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           101 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BY SIMILARITY.
INTERLEUKIN-8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; X78306; G463254; -.
EMBL; S7435; G786591; -.
PIR; S42496; S42496.
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; 118; 1.
HSSP; P10145; 11KL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INTERLEUKIN-8 PRECURSOR (IL-8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101 AA; 11292 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity 83.3%;
10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        22
101
61
77
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            75 EVCLDPKEKWVQ 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sest Local Similarity
                                                                                    SEQUENCE FROM N.A. MEDLINE; 95121931.
                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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DISULFID
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                                                                                                                                                                             MEDLINE;
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THERE BY BURE 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                         SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAIN-MONGREL: TISSUE-JUGULAR VEIN;
MEDLINE: 95114148.
KUKIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
KUKIELKA G.L., DALY T.J., HUGHES B.J., YOUKER K.A., HAWKINS H.K.,
MICHAEL L.H., ROT A. BUTWAN M.L.;
"Interleukin-8 gene induction in the myocardium after ischemla and
                                                                                        MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T., GOITSUKA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA S., YOSHIHARA K., ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.; "MOLECULAI Cloning and expression of canine interleukin 8 cDNA.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 88; DB 1; Length 101; Pred. No. 2.90e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY.
BY SIMILARITY.
7C49D62D CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BY SIMILARITY INTERLEUKIN-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL, AFO48717; G2935472; -.
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; il8; 1.
HSSP; P10145; lIKL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESPONSE TO AN INFLAMMATORY STIMULUS.
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                                                                                                                                                                                                                                                                                                                                          reperfusion in vivo.";
J. CLIN. INVEST. 95:89-103(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-AUG-1991 (REL. 19, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               101 AA; 11280 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    88.98;
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10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; D28772; G517100; -. EMBL; D14285; G475152; -. EMBL; U10308; G607814; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                      CYTOKINE 6:455-461(1994)
   GENE 131:305-306(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            75 EVCLDPKEKWVQ 86
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                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE; 97230298.
                                          SEQUENCE FROM N.A.
TISSUE=LYMPH NODE;
MEDLINE; 95127913.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IL8_PIG P26894; P22951;
                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN-BEAGLE
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-:- INDUCTION: BY LIPOPOLYSACCHARIDE.
-:- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
01-AUG-1992 (REL. 23, LAST SEQUENCE UPDATE)
01-CCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 porcine alveolar macrophages.)

porcine alveolar macrophages.

J. BIOL. CHEM. 266.8455-8463(1991).

-i- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,

BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN

RESPONSE TO AN INFLAMMATORY STIMULUS.

-i- SUBUNIT: HOMODIMER.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-LUNG;
MEDLINE; 93041741.
GOODMAN R.B., FOSTER D.C., MATHEWES S.L., OSBORN S.G., KUIJPER J.L.,
GOODMAN R.B., FOSTER D.C., MATHEWES S.L., OSBORN S.G., KUIJPER J.L.,
"Molecular cloning of porcine alveolar macrophage-derived neutrophil
chemotactic factors I and II; identification of porcine IL-8 and
anocher intercrine-alpha protein.";
BIOCHEMISTRY 31:10483-10490(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GOODWAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.; "Identification of two neutrophil chemotactic peptides produced by
                                                                                                                                                                                        EUKARYOTA; METAŽOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARIIODACTYLA; SUIFORMES; SUINA; SUIDAB; SUS.
                                                                                                                                                                                                                                                                                                                                                         LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J., WEISS D.J., MURTAUGH M.P., Regulation of interleukin. Regulation of interleukin macrophages by bacterial lipopolygaccharide.";
J. BIOL. CHEM. 269:77-85(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL. SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SANJANWALA M.;
SUBMITTED (JUL-1991) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (MAR-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1. PFAM; PF00048; 118; 1. HSSP; P10145; 11KL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A., AND SEQUENCE OF 26-45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; M86923; G164521; -.
EMBL; X61151; G516197; -.
EMBL, M99367; G1235612; -.
PIR; A44253; A44253.
PIR; A39819; A39819.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C-X-C) (CHEMOKINE CXC).
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103
61
77
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-YORKSHIRE;
                                                                                                                                                                                                                                                                                                                                              94103307
                                                                                                                                                                              SUS SCROFA (PIG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REVISION TO 23.
                                                                                                               (AMCF-I).
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0
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                                                                                                                                                                                                                                                                                                 ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOVINAE; BOS.
                                                                                   ö
                                                                                                                                                                                                                                                                       BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                    MORSET M.A., POPOWYCH Y., KOWALSKI J., GERLACH G., GODSON D.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                    Score 88; DB 1; Length 103;
Pred. No. 2.90e-07;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 85; DB 1; Length 101;
Pred. No. 1.51e-06;
3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; i18; 1.
HSSP; P10145; 11KL.
CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
    RC -> CR (IN REF. 5).
K -> KK (IN REF. 2)
33 34 RC -> CR (IN REF. 5).
87 87 K -> KK (IN REF. 2).
103 AA; 11633 MW; A012D59D CRG32;
                                                                                                                                                                                                        01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0E39C526 CRC32;
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01-FEB-1996 (REL. 33, CREATED)
01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BY SIMILARITY INTERLEUKIN-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BY SIMILARITY
BY SIMILARITY
                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                               INTERLEUKIN-8 PRECURSOR (IL-8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      34 61 B
36 77 B
101 AA; 11291 MW;
                                                                 Similarity 83.3%;
10; Conservative
                                                      88.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             85.9%;
                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; S82598; G1699354; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                   CAMPOS M., BABIUK L.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                    75 EVCLDPKEKWVQ 86
                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |:||:|||:|||
1 ELCLDPKENWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             75 EVCLNPKEKWVQ 86
                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity
                                                                                                                                                                                                                                                                                                                                           96304552
                                                                                                                                                                                IL8_BOVIN
P79255;
            CONFLICT
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 CONFLICT
                                                    Query Match
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                                                                            Matches
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                                                                                                                                                                    YOSHIMURA T., JOHNSON D.G.;
"CDNA cloning and expression of guinea pig neutrophil attractant
"CDNA cloning and expression of guinea pig neutrophil attractant
"CDNA cloning and expression of guinea pig neutrophil attractant
J. IMMUNOL. 151:6225-6236(1993).

-I- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INTELAMENTORY STIMILUS (BY SIMILARITY).

-I- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTORINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DI-DEC-1992 (REL. 24, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC SEMINAL FUJID PROTEIN).
BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOVINAE; BOS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WEMPE F., HENSCHEN A., SCHEIT K.H.;
"Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1).";
DNA CELL BIOL. 10:671-679(1991).
INTERLEUKIN-8 PRECURSOR (IL-8) (NEUTROPHIL ATTRACTANT PROTEIN 1)
                                                                   EUKARYOTA; METAZÒA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; HYSTRICOGNATHI; CAVIIDAE; CAVIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 85; DB 1; Length 101;
Pred. No. 1.51e-06;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    E13FB521 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BY SIMILARITY
BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BY SIMILARITY INTERLEUKIN-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; 118; 1.
HSSP; P10145; 1IKL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                   CAVIA PORCELLUS (GUINEA PIG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 101 AA; 11414 MW;
                                                                                                                                                                                                                                                                                                                                                     C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     85.9%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=SEMINAL PLASMA;
MEDLINE; 92096117.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sest Local Similarity
                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                           MEDLINE; 94065176.
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                                                                                                                                          TISSUE-SPLEEN;
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P28291;
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DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N., GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N., LLAVIGNE F., HAMID Q., MURPHY P.M., LUSTER A.D.; a novel CC "Human monocyte chemoattractant protein (MCP)-4 is a novel CC chemokine with activities on monocytes, eosinophils, and basophils induced in allergic and nonallergic inflammation that signals through the CC chemokine receptors (CCR)-2 and -3.";
J. IMMUNOL. 157:5613-5626(1996).
                                                                                                                                                          -i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
            WEMPE F., EINSPANIER R., SCHEIT K.H.; "Characterization by cDNA cloning of the mRNA of a new growth factor from bovine seminal plasma: acidic seminal fluid protein."; BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
                                                                                           NEMPE F., KUHLMANN J.K., SCHEIT K.H.; "Characterization of the bovine monocyte chemoattractant protein-1
                                                                                                                      BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
-1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                          MONOCYTE CHEMOTACTIC PROTEIN 1A. PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
MONOCYTE CHEMORACIIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
CHEMORATRACTANT PROTEIN 4) (CK-BETAIO) (NCC-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 81; DB 1; L pred. No. 1.31e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    C8F5821D CRC32;
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BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                   BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                    PROSITE; PSO0472; SMALL_CYTOKINES_CC; 1.
PFAM; PPO0048; i18; 1.
HSSP; P13500; 1DON.
                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                        CYTOKINE; CHEMOTAXIS; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       99 AA; 11114 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     larity 75.0%;
Conservative
                                                                                                                                                                                                                                                                                          EMBL; L32659; G624394; -.
                                                                                                                                                                                                                                                                                                   EMBL, M84602, G163395; -. PIR, A39296; A39296. PIR, JC2336.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 ELCLDPKENWVQ 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-HEART;
MEDLINE; 97113354.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SECUENCE FROM N.A.
                                                                        SEQUENCE FROM N.A. MEDLINE; 94338337.
        92181448.
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Q99616;
                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POWER C.A., MEYER A., RISON S.C.G., GUYE-COULIN F., WELLS T.N.C.;
SUBMITTED (DEC-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LIMPHOCYTES,
-2- FONCTION: CHEMOTACTIC FACTOR THAT ATTRACTES, DIVINGULATION OF CORRAB AND CORS RECEPTORS. PLAYS A ROLE IN THE ACCUMILATION OF LEGROCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
MALL DURING THE DISEASE PROCESS OF ALLEROSCLEROSIS. MAY PLAMMATION OF WALL DURING THE BISEASE PROCESS OF ARTHEROSCLEROSIS. MAY PLAY A PERFECTION IN TISSUES CHRONICALLY EXPOSED TO
                                               MEDLINE; 96235049.
MEDLINE; DESTSCHER P., FORSSMANN U., DEWALD B., LI H., LIMA S.H., UGUCCIONI M., LOETSCHER B., GREOTTA G., THELEN M., BAGGIOLINI M.;
MONOCYTE CHEMOTACTIC PROTEIN 4 (MCP-4), a novel structural and functional analogue of MCP-3 and eotaxin.";
J. EXP. MED. 183:2379-2384(1996).
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MEDILINE; 97341179.
MEDILINE; 97341179.
MERRHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N.,
APPELBAUM E., SEAPE T.J., BRAWNER M., MAKWANA J., FOLEY J.J.,
SCHMIDT D.B., IMBURGIA C., MACNULTY D., MATHEWS J., O'DONNELL K.,
O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.;
"Cloning, in vitro expression, and functional characterization of a
novel human CC chemokine of the monocyte chemotactic protein (MCP)
family (MCP-4) that binds and signals through the CC chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CYTOKINE; CHEMOTAXIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DANTE M., GIBSON A.;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
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SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BIOL. CHEM. 272:16404-16413(1997).
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HSSP; P13500; 1DOL.
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                                        TISSUE-FETAL
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01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MOP-1) (MONOCYTE CHEMOTACTIC
MONOCYTE CHEMOATTRACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 89165862.

FUNDERNI Y., NOWIMA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M., LARSEN C.G., OPPENHEIM J.J., MATSUGHIMA K.;

"Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).",

BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE."; FEBS LETT. 244:487-493(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "The expression of monocyte chemotactic protein (MCP-1) in human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ROLLINS B.J., STIER P., ERNST T., WONG G.G.;
"The human homolog of the JE gene encodes a monocyte secretory
                                                                                                                                                                                                                                                                                                                            HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SHYY Y.J., LI Y.S., KOLATTUKUDY P.E.,
"Structure of human monocyte chemotactic protein gene and its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LI Y.S., SHYY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
                                                              , Db 1,
. 6.44e-05;
. -has 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YOSHIMURA I., YUHKI N., MOORE S.K., APPELLA E., LERMAN M.I.,
LEONARD E.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990).
       BY SIMILARITY.
POTENTIAL.
DF52F6EC CRC32;
                                                                                    2; Mismatches
                                                                                                                                                                                                99 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          vascular endothelium in vitro and in vivo";
MOL. CELL. BIOCHEM. 126:61-68(1993).
                                                           Score 78;
Pred. No.
                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOL. CELL. BIOL. 9:4687-4695(1989).
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 35 74
29 29
98 AA; 10986 MW;
                                                                   Local Similarity 75.0%;
                                                          78.8%;
                                                                                   Conservative
                                                                                                                                                                                            STANDARD;
                                                                                                           72 EICADPKEKWVQ 83
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                                                                                                                                                                                    MCP1_HUMAN
P13500;
DISULFID
                           SEQUENCE
                CARBOHYD
                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE;
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SHABANOWITZ J., HUNT D.F., APPELLA E., "Complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune reactions."; PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WEBER M. UGUCCIOIN M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
"Deletion of the NHJ-terminal residue converts monocyte chemotactic protein 1 from an activator of basophil mediator release to an essinophil chemoattractant.";
J. EXP. MED. 183:681-685(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.,
Structure/activity analysis of human monocyte chemoattractant
protein-1 (MCP-1) by mutagenesis. Identification of a mutated protein
that inhibits MCP-1-mediated monocyte chemotaxis.";
J. BIOL. CHEM. 269:15918-15924(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LUBKOWSKI J., BUJACZ G., DOMAILLE P.J., HANDEL T.M., WLODAWER A.; "The structure of MCP-1 in two crystal forms provides a rare example of variable quaternary interactions."; STRUCT. BIOL. 4:64-69(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HANDEL T.M., DOWAILLE P.J.;
"Heteronuclear (1H, 13C, 15N) NMR assignments and solution structure of the monocyte chemoattractant protein-1 (MCP-1) dimer.";
BIOCHEMISTRY 35:6569-6584(1996).
                                                                                                                              ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
                                                                                                                                                                                                                                              DECOCK B., CONINGS R., LENAERTS J.-P., BILIAU A., VAN DAMME J.; "Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally
                                                                                                                                                                                                                                                                                                                                                        GRONDBRORN A.M., CLORE G.M.;
"Modeling the three-dimensional structure of the monocyte chemoattractant and activating protein MCAF/MCP-1 on the basis of the PROTEIN ENG. 4:263-269(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
"Structural characterization of a monomeric chemokine: monocyte
                                                       "Human monocyte chemoattractant protein-1 (MCP-1).";
ADV. EXP. MED. BIOL. 305:47-56(1991).
                                                                                                                                                                                                                                                                                                  BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
                                                                                                                                                                                                                    SEQUENCE OF 29-53 AND 82-92.
                                         YOSHIMURA T., LEONARD E.J.;
                                                                                                                                                                                                                                                                                                                                 3D-STRUCTURE MODELLING.
            SEQUENCE FROM N.A.
                                                                                                SEQUENCE OF 24-99.
MEDLINE; 89184525.
                             92095166
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
            SUBDUTT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
FPM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERTS IT FROM AN ACTIVATOR OF BASOPHIL TO AN BOSINOPHIL CHEMOATTRACTANT. SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMORINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MISSING: 90% REDUCTION IN ACTIVITY.
MISSING: 83% REDUCTION IN ACTIVITY.
N->A: 90% REDUCTION IN ACTIVITY.
N->E: 95% REDUCTION IN ACTIVITY.
S->C: 40% REDUCTION IN ACTIVITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5355B695 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1; Length 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MISSING: LOSS OF ACTIVITY. MISSING: LOSS OF ACTIVITY.
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R->L: LOSS OF ACTIVITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    101 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 75;
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                                                                                                                                                                                                                                                                                                                               M28224; G338007; JOINED.
                                                                                                                                                                                                           EMBL; M31626; G386961; -. EMBL; M30816; G386961; JOINED. EMBL; M31625; G386961; JOINED.
                                                                                                                                                                                                                                                                                                                   M28223; G338007; JOINED.
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                                                                                                                                                                                                                                                                                                                                                         G240868; -.
G641145; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                  M28226; G338009; -. X14768; G34514; -.
                                                                                                                                                                                                                                                      M24545; G307163; -.
                                                                                                                                                                                                                                                                                                       M28225; G338007; -
                                                                                                                                                                                                                                                                                            M37719; G487124; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PFAM; PF00048; il8; 1.
                                                                                                                                                                                                                                                                                                                                             G545465;
                                                                                                                                                                                                                                                                                                                                                                                                                                     14-OCT-96.
14-OCT-96.
15-OCT-94.
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| ELCLDPKENWVQ 12
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                                                                                                                                                                                                                                                                                                                                                                                                           LDOK; 12-MAR-97
                                                                                                                                                                                                                                                                                                                                                                                                                          12-MAR-97
                                                                                                                                                                                                                                                                                                                                                                                   A35474; A35474.
S03339; S03339.
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         ATHEROSCLEROSIS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                      1DOM;
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DISULFID
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EMBL;
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                                                                                                                                                                                                       -i- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                             VEINS, AND INFILITRATING LEUKOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-0CT-1996 (REL. 34, CREATED)
01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                     EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
CARNIVORA; FISSIPEDIA; CANIDAE; CANIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 101;
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. 3.08e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A7075B14 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 75; DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3; Mismatches
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BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; U29653; G1144186; -.
PROSITE; PSO0472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; i18; 1.
HSSP; P13500; 1DON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY)
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                                                                                                                                                                   SEQUENCE FROM N.A.
TISSUE-JUGULAR VEIN ENDOTHELIAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11121 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     75.8%;
                                                          CHEMOATTRACTANT PROTEIN-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C-C) (CHEMOKINE CC)
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75
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101
24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 ELCLDPKENWVO 12
                                                                                               CANIS FAMILIARIS (DOG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                   MEDLINE; 97176620.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SCYA3 OR MIP1A.
                                                                                SCYA2 OR MCP1
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P50229;
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SEQUENCE
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P52203; 01-OCT-1996 (REL. 34, CREATED)

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                                                                                                                                                                                                                                                   INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                          SHI M.M., GODLESKI J.J., PAULAUSKIS J.D.,
"Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar macrophages.";
BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
                                                                                                                                                                                                                                                                                                                                                                                                            ADHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLUX. THIS PROTEIN
                                                                                                                         MEDLINE; 95238980.
SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
"Role of macrophage inflammatory protein-1 alpha (MIP-1 alpha) in
                                                                                                                                                                                                                                                                                                                                                                              MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE PRODUCTION OF THE ALPHA WHICH IN TURN UP-REGULATES VASCULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A -> T (IN REF. 2)
C -> W (IN REF. 2 AND 3).
F48CF89F CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 74; DB 1; La
Pred. No. 5.17e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P13236; 1HUN.
                                                                                                                                                                      ite lung injury in rats.";
IMMUNOL. 154:4793-4802(1995).
                                                                                              SEQUENCE FROM N.A.
STRAIN=LONG EVANS; TISSUE=LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10335 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           74.78;
66.78;
  STRAIN-CD-1; TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; U22414; G790633; -. EMBL; U06435; G459150; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                              SEQUENCE OF 24-57.
                                                                                                                                                                                                                           STRAIN-WISTAR;
MEDLINE; 96183056.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                           BINDS HEPARIN.
                MEDLINE; 9529803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIGNAL
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Gaps
  0;
Indels
               71 QICADPKETWVQ 82
                           ::| |||| |||
1 ELCLDPKENWVQ 12
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MCP1_PIG STANDARD; PRT; 99 AA.
P42831;
01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).

RESULT

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Search completed: Fri Feb 4 17:09:51 2000 Job time : 7 secs.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                 SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY). SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                      MEDLINE, 94183284.
HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTKE W., SCHEIT K.H.;
"Porcine luteal cells express monocyte chemoattractant protein-1
(MCP-1): analysis by polymerase chain reaction and cDNA cloning.";
BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
                             EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 74; DB 1; Length 99;
Pred. No. 5.17e-04;
4; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ECC3AFB4 CRC32;
                                             ARTIODACTYLA; SUIFORMES; SUINA; SUIDAE; SUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; 118; 1. HSSP; P13500; 1DON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10976 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   larity 58.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; Z48479; G683717; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; X79416; G872313;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOKINE; CHEMOTAXIS;
                                                                           SEQUENCE FROM N.A. MEDLINE; 94183284.
                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99 AA;
                SUS SCROFA (PIG)
                                                                                                                                                                                                                                                                   NEUTROPHILS
                                                                                                                                                                                                      TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
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(MT)	
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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 17:08:49 2000; MasPar time 3.58 Seconds 134.457 Million cell updates/sec

Tabular output not generated.

Run on:

>US-09-150-813-40 (1-12) from US09150813.pep 99

1 ELCLDPKENWVQ 12 Description: Perfect Score:

PAM 150 Gap 15 Sequence:

Scoring table:

122810 seqs, 40068593 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

pir60 1:pir1 2:pir2 3:pir3 4:pir4 Database:

Mean 25.485; Variance 37.640; scale 0.677 Statistics: Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Pred. No.	1.41e-08	1.10e-07	3.72e-06	3.72e-06	3.72e-06	3.72e-06	3.72e-06	1.63e-05	1.14e-04	1.14e - 04	1.96e - 03	3.12e-03	3.12e - 03	7.83e-03	7.83e-03	1.94e-02	3.05e-02	3.05e-02	3.05e-02	4.77e-02	4.77e-02	7.43e-02	7.43e-02
Description	pr	•	interleukin-8 - dog	- 8-	interleukin 8 - sheep	alveolar macrophage c	interleukin-8 precurs	Neutrophil attractant	monocyte chemoattract	monocyte chemoattract	monocyte chemoattract	macrophage inflammato	monocyte chemoattract	RSV-induced protein -	transformation-induce	PDGF-inducible JE gly	monocyte chemotactic	lymphocyte and monocy	monocyte chemoattract	eotaxin precursor - h	monocyte chemotactic	macrophage inflammato	monocyte chemoattract
ΩI	A37034	146871	JN0841	146997	S42496	A44253	A53096	I48148	JC2336	A39296	A60299	152322	JC2136	150417	A26736	A30209	JC5295	JE0177	I46857	JC4912	A54678	A32393	JC2417
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% Query Match	100.0	96.0	88.9	ω,	ω.	88.9	88.9	85.9	81.8	81.8	75.8		74.7	727	72.7	70.7	69.7	69.7	69.7	68.7	68.7	67.7	67.7
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00000000000000000000000000000000000000	28
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ALIGNMENTS

A37034 #interleukin- beta-thrombo neutrophil chemotaxin factor; m monocyte- #formal_name	08-Dec-1992 #sequence_revision 08-Dec-1992 #text_change 17-Mar1199 A37034 JL0041; A32791; S37634; PL0107; A28598; A27488; A39960; A60401; A60591; S15827; S04216; A60567; A60847; S15417; S03975; 154560; 155992; 137902; S67519	eren	nle nes re	Jidoti Matsubhima, K.; Morishita, K.; Yoshimura, T.; Lavu, S.; Robayashi, Y.; Lew, W.; Appella, E.; Kung, H.F.; Leonard, E.J.; Oppenheim, J.J. J. Exp. Med. (1988) 167:1883-1893 Molecular cloning of a human monocyte-derived neutrophil chemotactic factor (MDNCF) and the induction of MDNCF mRNA by interleukin 1 and tumor necrosis factor.	#accession Jule 1.99 #label Mal #accession Figure 1.99 #label Mal #access-references EMBL: Y00787; NID: 934518; PID: 934519 #access-references EMBL: Y00787; NID: 934518; PID: 934519 #access-references EMBL: Y00787; NID: 934518; PID: 934519 #accession Figure 1.99	A32791 Kowalski, J.; Denhardt, D.T. Mol. Cell. Biol. (1989) 9:1946-1957 Regulation of the mRNA for monocyte-derived
RESULT 1 ENTRY TITLE ALTERNATE_NAMES ORGANISM	DATE	REFERENCE #authors #journal #journal #title #cross-refe	##molecule ##residues ##cross-re ##note	REFERENCE #authors #journal #title	#ACCSS-Letter #ACCSS-Letter ##molecule ##residues ##cross-re ##note	REFERENCE #authors #journal #title

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#journal J. Exp. Med. (1989) 169:1895-1901
#title Purification and partial primary sequence of a chemotactic protein for polymorphonuclear leukocytes derived from human #cross-references MUD:89279141
#accession PLO107
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Suzuki, K.; Miyasaka, H.; Ota, H.; Yamakawa, Y.; Tagawa, M.;
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Purification of a human monocyte-derived neutrophil chemotactic factor that has peptide sequence similarity to other host defense cytokines.
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                                                                                                                                                                                                                                                                                                                          King, C.H.; Gordon, G.S.; Konieczkowski, M.; Sedor, J.R. submitted to the EMBL Data Library, February 1992 837634
neutrophil-activating peptide in differentiating HL60
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#journal Biochem. Biophys. Res. Commun. (1987) 149:755-761
#title purification and amino acid sequencing of NAF, a novel neutrophil-activating factor produced by monocytes.
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Christophers, E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Biochem. Biophys. Res. Commun. (1988) 151:883-890
Structure determination of a human lymphocyte derived
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##residues 23-32,'XR',35,'X',37-52,'L',54 ##label SUZ
##experimental_source lung giant cell carcinoma LU65C
SNCE A28598
                                                                                                                                                                                                ##cross-references EMBL:211686; NID:933958; PID:933959
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##residues 28-99 ##label GRE
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##residues 28-59 ##label WAL
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##residues 1-97 ##label KIN
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#accession A39960
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Opdenakker, G.; Billiau, A. Eur. J. Immunol. (1989) 19:1189-1194
The Chemotactic activity for granulocytes produced by virally infected fibroblasts is identical to monocyte-derived interleukin 8.
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#title Purification of granulocyte chemotactic peptide/interleukin-8
reveals N-terminal sequence heterogeneity similar to that
#cross-references WUID:89231715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        #authors Yoshimura, T.; Robinson, E.A.; Appella, E.; Matsushima, K.; Showalter, S.D.; Skeel, A.; Leonard, E.J.
MOL. Immunol. (1989) 26:87-93
#title Three forms of monocyte-derived neutrophil chemotactic factor (MDNCF) distinguished by different lengths of the #cross-references MUD:89181632
#accession A60567
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A novel, NH-2-terminal sequence-characterized human monokine possessing neutrophil chemotactic, skin-reactive, and granulocytosis-promoting activity.
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Biochem. J. (1989) 259:585-588
Inflammatory cytokines induce synthesis and secretion of groprotein and a neutrophil chemotactic factor but not beta-2--microglobulin in human synovial cells and
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the forms starting from positions 21, 23, and 28
represented 8%, 47%, and 45%, respectively, of total interleukin.8
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Biochem. J. (1991) 275:881-584
Formation of neutrophil-activating peptide 2 from
platelet-derived connective-tissue-activating peptide III
by different tissue proteinases.
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##molecule_type protein
21-67 ##label VA2
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##residues 28-99 ##label CAR
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J. Immunol. (1991) 146:3483-3488
Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their
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Hsuan, J.; Waterfield, M.D.; Williams, T.J.
Hsuan, J. (1990) 271:/97-801
#fitle hovel neutrophil chemoattractant generated during an inflammatory reaction in the rabbit peritoneal cavity in vivo. Purification, partial amino acid sequence and structural relationship to interleukin 8.
#accession $13052
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                                                                     Hotta, K.; Hayashi, K.; Ishikawa, J.; Tagawa, M.; Hashimoto, K.; Mizumo, S.; Suzuki, K.
Immunol. Lett. (1990) 24:165-170
Coding region structure of interleukin-8 gene of human lung
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19-May-1994 #sequence_revision 19-May-1994 #text_change
12-Apr-1995
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#formal_name Oryctolagus cuniculus #common_name domestic
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#length 101 #molecular-weight 11402 #checksum 1085
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Pred. No. 1.41e-08;
0; Mismatches 0; Indels
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##cross-references GB:M57439; NID:g165552; PID:g165553
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#cross-references MUD:91225489
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interleukin-8 - dog
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interleukin-8 - rabbit
                              ##molecule_type protein
##residues 23-46 ##label GOL
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Local Similarity 91.7%;
hes 11; Conservative
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##residues 1-103
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#authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.
#journal Immunol. Cell Biol. (1994) 72:398-405
#title Skin of covine interleukin-8.
#cross-references MUID:95137691
#accession 146997
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Ishikawa, J.; Suzuki, S.; Hotta, K.; Hirota, Y.; Mizuno, S.; Suzuki, K.
                                                                                                                                                                                                         This protein is a polymorphonuclear leukocyles chemotactic factor and is involved in the host defense function.
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06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
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21-Peb-1997 #sequence_revision 21-Peb-1997 #text_change
09-May-1997
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#formal_name Ovis orientalis aries, Ovis ammon aries
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#length 101 #molecular-weight 11292 #checksum 294
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#superfamily heta-thromboglobulin
#length 95 #molecular-weight 10611 #checksum 3157
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                               #journal Gene (1993) 131:305-306
#title Cloning of a canine gene homologous to the human interleukin-8-encoding gene.
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88.9%; Score 88; DB 2; Length 101;
Best Local Similarity 83.3%; Pred. No. 3.72e-06;
Matches 10; Conservative 2; Mismatches 0; Indels
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Pred. No. 3.72e-06;
2; Mismatches 0; Indels
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##cross-references GB:S74436; NID:9786590; PID:9786591
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1-8 - sheep
                                                                                                                                                                         ##molecule_type DNA
##residues 1-95 ##label ISH
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Best Local Similarity 83.3%;
Matches 10; Conservative
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#title Molecular cloning of portine liveolar macrophage-derived neutrophil chemotactic factors I and II; identification of portine IL-8 and another intercrine-alpha protein.
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#formal_name Sus scrofa domestica #common_name domestic pig
30.Apr-1993 #sequence_revision 18-Nov-1994 #text_change
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#formal_name Sus scrofa domestica #common_name domestic pig
02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change
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Kuijper, J.L.; Forstrom, J.W.; Martin, T.R.
Blochemistry (1992) 31:10483-10490
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##residues 1-103 ##label GOO
##experimental_source alveolar macrophage
##note sequence extracted from NCBI backbone (NCBIN:117415,
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                              ##Crossreferences EMBL:X78306; NID:9463253; PID:9463254
CLASSIFICATION #superfamily beta-thromboglobulin
#Inength 101 #molecular-weight 11292 #checksum 294
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*length 103 *molecular-weight 11677 *checksum 8904
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##cross-references GB:M86923; NID:9164520; PID:9164521
FICATION #superfamily beta-thromboglobulin
X #length 103 #molecular-weight 11633 #checksum 8835
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Pred. No. 3.72e-06;
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Best Local Similarity 83.3%;
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monocyte chemoattractant protein-1 - bovine
#formal_name Bos primigenius indicus #common_name zebu cattle
20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
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J. Immunol. (1993) 151:6225-6236
cDNA cloning and expression of guinea pig neutrophil
attractant protein-1 (NAP-1): NAP-1 is highly conserved in
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#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
Characterization of the bovine monocyte chemoattractant
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              Length 103;
                                          0; Indels
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Pred. No. 1.63e-05;
2; Mismatches 1; Indels
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Pred. No. 1.14e-04;
2; Mismatches 1; Indels
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##CrOss-references GB:L04986; NID:9459764; PID:9459765
       Score 88; DB 2; Louis Pred. No. 3.72e-06;
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##residues 1-99 ##label WEM
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#cross-references MUID:94065176
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#cross-references MUID:94338337
Query Match
Best Local Similarity 83.3%;
Matches 10; Conservative
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Best Local Similarity 75.0%;
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Best Local Similarity 75.0%;
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The human homolog of the JE gene encodes a monocyte secretory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              #authors Shy, Y.J.; Li, Y.S.; Kolattukudy, P.E. Shy, Y.J.; Li, Y.S.; Kolattukudy, P.E. Biophys. Res. Commun. (1990) 169:346-351 #fitle Structure of human monocyte chemotactic protein gene and its regulation by TPA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         monocyte chemoattractant protein 1 precursor - human GDCF-1; glioma-derived monocyte chemotactic factor 1; MCAF; MCP-1; monocyte chemotactic factor 1; monocyte secretory
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                                                                                                                                                                                                Wempe, F.: Henschen, A.: Scheit, K.H.

DNA Cell Biol. (1991) 10:671-679

Gene expression and cDNA cloning identified a major basic

protein constituent of bovine seminal plasma as bovine
monocyte-chemoattractant protein-1 (MCP-1).
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                 monocyte chemoattractant protein 1 precursor - bovine monocyte chemotactic factor 1; seminal plasma protein P6 monocyte chemotactic factor 1; seminal plasma protein P6 #formal_name Bos primigenius taurus #common_name cattle 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change 31-Oct-1997
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glioma-derived chemotactic factor 2 (GDCF-2)
#formal_name Homo sapiens #common_name man
20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
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cession B39296
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Best Local Similarity 75.0%; Pred. No. 1.14e-04;
Matches 9; Conservative 2; Mismatches 1; Indels
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NCE A33476
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##residues 1-99 ##label SHY
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#journal Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.
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                                                                      A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van
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##cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #authors Yoshimura, T.: Leonard, E.J.
#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cross-references MUID:92095166
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##cross-references GB:S71513; NID:9240867; PID:9240868
                                                                                                                                                                                                                                                                                                                                   ##residues 1-99 ##label YOS
##cross-references GB:X14768; NID:934513; PID:934514
##experimental_source glioma cell line U-105MG
:NCE I51841
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##residues 29-33,'XX',36-52;82-92 ##label DEC
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#accession A32396
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#accession A32300
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Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill, J.F.; Kolattukdy, P.E.
Mol. Cell. Biochem. (1993) 126:61-68
The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              experimental #label MAT\
#product monocyte chemoattractant protein 1, short form
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#product monocyte chemoattractant protein 1 #status
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#modified_site pyrrolidone carboxylic acid (Gln) (in
mature form) #status experimental\
#binding_site carbohydrate (Asn) (covalent) #status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 #superfamily macrophage inflammatory protein cytokine; glycoprotein; inflammation; pyroglutamic acid
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macrophage inflammatory protein-lalpha - rat
#formal_name Rattus norvegicus #common_name Norway rat
29-May-1998 #sequence_revision 29-May-1998 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
Biochem. Biophys. Res. Commun. (1995) 211:289-295
Molecular cloning and posttranscriptional regulation of
macrophage inflammatory protein-1 alpha in alveolar
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Chinese J. Microbiol. Immunol. (1994) 14:29-32
The PCR, cloning and sequencing of human monocyte
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Pred. No. 3.12e-03;
2; Mismatches 2; Indels
                                                                                                                                                                       Score 75; DB 2; Length 99;
Pred. No. 1.96e-03;
3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                           chemoattractant protein-1 (MCP-1) gene.
                                                                                                                                                         translated from GB/EMBL/DDBJ
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#map_position 17q11.2-17q12
                                                                                                                   #cross-references MUID:94150478
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Local Similarity 66.7%;
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#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84:6715-6719

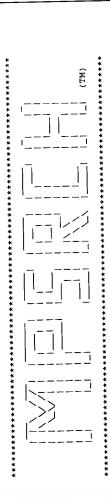
#title Constitutive expression of a gene encoding a polypeptide homologous to biologically active human platelet protein in Rous sarcoma virus-transformed fibroblasts virus transformed fibroblasts.

#cross-references MUID:88016162
                                                                                                                                      monocyte chemoattractant protein-1 precursor - pig
#formal_name Sus scrofa domestica #common_name domestic pig
30.Sep-1993 #sequence_revision 20-Aug-1994 #text_change
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                                                                                                                                                                                                                                                           Hosang, K.; Knoke, I.; Klaudiny, J.; Wempe, F.; Wuttke, W.;
                                                                                                                                                                                                                                                                            Schoit, K.H.
Biochem. Biophys. Res. Commun. (1994) 199:962-968
Porcine luteal cells express monocyte chemoattractant
protein-1 (MCP-1): Analysis by polymerase chain reaction
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    predicted #label MAT\
    #binding_site carbohydrate (Asn) (covalent) #status
    predicted
#length 99 #molecular-weight 10976 #checkeum 0760
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RSV-induced protein - chicken
#formal_name Gallus gallus #common_name chicken
13.Sep-1996 #sequence_revision 13-Sep-1996 #text_change
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CLASSIFICATION #superfamily beta-thromboglobulin
#Inogth 103 #molecular-weight 11090 #checksum 8267
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FICATION #superfamily macrophage inflammatory protein
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3.12e-03;
..hes 1; Indels
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Pred. No. 3.12e-03;
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#Cross-references MUID:94183284
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les 7; Conservative
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1 ELCLDPKENWVQ 12
71 QICADPKETWVQ 82
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#product transformation-induced protein #status
predicted #label MAT
#length 103 #molecular-weight 11056 #checksum 8297
                                                                                                                                                                                                                                                                                                                                                                                                                                    #authors Sugano, S.; Stoeckle, M.Y.; Hanafusa, H.
#journal Cell (1987) 49:321-328
#title Transformation by Rous sarcoma virus induces a novel gene
#cross-references with homology to a mitogenic platelet protein.
#cross-references wulD:87187628
#accession A26736
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                                                                                                                                                                                                                                                 A26736 #type complete
transformation-induced protein precursor (clone 9E3) -
chicken
#formal_name Gallus gallus #common_name chicken
#formal_name Gallus gallus #common_name chicken
19-Nov-1988 #sequence_revision 19-Nov-1988 #text_change
20-Mar-1998
                                                   0; Gaps
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Query Match 72.7%; Score 72; DB 2; Length 103; Best Local Similarity 66.7%; Pred. No. 7.83e-03; Matches 8; Conservative 1; Mismatches 3; Indels
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##cross-references GB:Mf6199; NID:9211735; PID:9211736
[FICATION #superfamily beta-thromboglobulin
US growth factor
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protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 17:08:12 2000; MasPar time 3.54 Seconds 72.129 Million cell updates/sec MPsrch_pp

rabular output not generated.

>US-09-150-813-40 (1-12) from US09150813.pep 99 Description: Perfect Score: Title:

1 ELCLDPKENWVQ 12 Sequence: 170751 segs, 21266608 residues Searched:

PAM 150 Gap 15

Scoring table:

Minimum Match 0% Listing first 45 summaries Post-processing:

1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7 8:part8 9:part9 10:part10 11:part11 12:part12 13:part13 14:part14 15:part15 16:part16 17:part17 18:part18 19:part19 20:part20 21:part21 22:part22 23:part23 24:part24 25:part25 26:part26 27:part27 28:part28 29:part29 30:part30 31:part31 32:part32 33:part33 34:part34 35:part35 36:part36 37:part37 38:part38 39:part39 a-geneseq35 Database:

Mean 18.854; Variance 67.209; scale 0.281 Statistics: Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Pred. No.	7 330-03	00 007.	7.23e-03	7.23e-03	7 220-03	20 20 20 1	/.23e-U3	7.23e-U3	7.23e-03	7.23e-03	1 222.03	7.23e-03	7.236-03	7.23e-03	7.23e-03	7.23e-03	7.23e - 03	7 230-03	7.630	/.z3e-U3
	Description		NAF (44-/2) peptide in	Interleukin-8(34-72)	Modified human interl		r mamar.	human 1	Modified human interl	Modified human interl	Modified human interl		Modified human interl	Chemokine-like protei	Neutrophil chemotacti	Sequence of a synthet	Mutant human IL-8, F2	Mutant human IL-8, S1		Mutant numan 11-6, 04	Mutant human IL-8, Yl
	GI.		R20237	W04515	100000	10000	R38086	R38085	R38083	838084	100000	KSOOGT	R38082	R99805	W41519	P81838	W25713	W25708		W25710	W25707
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æ	Query		100			7007	100.0	100.0	100.0		0.00	100.0	100.0	100	100.0	100.0	1000	0001		100.0	100.0
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23e-	3e-0	.23e-0	3e-0	.23e-0	.23e-0	. 23e-	3e-0	.23e-0	.23e-0	. 23e-	.23e-	. 23e-	. 23e-	. 23e-	.23e-	.33e-	.23e-	ė	. 23	7.23e-03	7		C	, ,	220	200	236	.48e-	3.81e-02
Neutrophil-specific c	interleukin-8.	(A)	н		rot	II-8,	Interleukin-8 soluble	Mutant human IL-8, R4	Interleukin(1-72) pro	Mutant human IL-8, Yl	interleuk	Chemokine-like protei	Ę,	oph	Chemokine-like protei	Ξ	ine-like pr	ķ	. 8-	chemokine-like protei	i ke	77 le	14001		Leukin-8/NA	neutrophil che	acid sequence	human IL-8,	Mutant human IL-8, L4
24	Н	11	20 R9981	1 R031	20 R998	23 W2570	35 W702	23 W2570	22 W045	23 W2571	7 R3808	20 R9980	1 P9091	1 R0361	20 89980	1 00007	20 20 20 20 20 20 20 20 20 20 20 20 20 2	20001 00	20000	10000	100000	A1210 C 1	DICTU C	7 1 P9001	7 13 R7079	9 1 R0523	3 2 P9363	3 W2	2 23
٦	100	100	100	1001	100	1001	000			0.001	1 -	- 1	-	100.0	-	200		200		100.	100.	100.	, TOO.	100.	.001 €	9	100.	97	92 92.9
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ALIGNMENTS

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Gaps
                                                                                                                                                                                                      which we peptide inhibitors of neutrophil activating factor - which inhibit chemotaxis, for treating adult respiratory distress syndrome and other inflammatory lesions caused by NAF claim 8: Column 9: Lipp: English.

NAF(44-72) is a preferred peptide derived from NAF which is nartagonistic to NAF and has no chemotactic activity. It inhibited NAF-induced migration by 34 per cent. When used with a second preferred peptide, i.e. NAF(3-25) (see R20236) inhibition was 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W04515;
30-JUL-1997 (first entry)
Interleukin-8(34-72) used in novel synthesis method.
Thioester; synthesis; ligation; catalysis; thiol; condensation;
                                                                                                                                                                                                                                                                                                                                                                                                                  ..
                        R20237;
01-MAY-1992 (first entry)
NAF(44-72) peptide inhibitor of neutrophil activating factor.
bronchitis; neutrophil chemotaxis; ARDS.
                                                                                                                                                                                                                                                                                                                                                                                 Score 99; DB 4; Length 29;
Pred. No. 7.23e-03;
0; Mismatches 0; Indels
                                                                                                                        07-JAN-1992.
05-FEB-1990; 475658.
05-FEB-1990; US-475658.
(TEXA ) UNIV OF TEXAS SYST.
Cohen AB, Miller EJ, Nagao S, Carr FK;
WPI: 92-041038405.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W04515 standard; peptide; 39 AA.
^{
m T} 1
R20237 standard; Protein; 29 AA.
                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity 100.0%;
les 12; Conservati
                                                                                                                                                                                                                                                                                                                                                                                                                                                       5 elcldpkenwvg 16
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                                                                                          Synthetic.
US5079228-A.
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Matches
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Fig. 20 yours, you.

Synthesis of protein by chemical ligation of unprotected peptide(s)

Py reaction of N-terminal Cys with C-terminal thioester and

Py reaction of N-terminal Cys with C-terminal thioester and

Py spontaneous rearrangement of intermediate prod.

Example 3; Page 47; 61pp; English

The present peptide, which has an amino-terminal cysteine residue,

The present peptide, which has an amino-terminal cysteine residue,

Ist oligopeptide (OP) to a 2nd OP, end to end, to produce an OP

Product. This comprises mixing the 1st and 2nd OP (which have a

corpoxy-terminal thioester and an amino-terminal Cys with an

unoxidised SH side chain) in a solution containing a catalytic

Corticul. Condensing the terminal groups to form an intermediate OP,

Containing the bond to give a product OP linked by an amide bond.

Containing the bond to give a product to P linked by an amide bond.

Which can be made into native, disulphade containing proteins by

Conforming the size of protein that can be made by chemical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Clark-Lewis I, Moser B;
WPI: 93-196997/24.
New interleukin-8 analogues modified in specified region - used as neutrophil activators or for blocking effect of IL-8 on neutrophil(s) for treatment of inflammation.
Claim 23: page 30; 47pp; English.
The sequence is that of an analogue of interleukin-8 (IL-8) comprising competitive antagonist of IL-8, i.e. it can be used to treat act as a neutrophil activator and so can be used to treat act as a neutrophil activator and so can be used to stimulate an inflammatory response.
Sequence 67 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Modified human interleukin.8 analogue (3-69).
Analogues; modified; neutrophil activators; antagonists; human; competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
link; beta-aminothioester; bond; amide; production; disulphide; refolding; oxidisation; interleukin 8; IL-8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 99; cc. c. reference No. 7.23e-03; Pred. No. 7.23e-03; reference 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 99; DB 22; Length 39;
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Pred. No. 7.23e-03;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         activity; stimulation; inflammatory response.
                                                                                                      04-MAY-1995; WO-U05668.
(SCRI ) SCRIPPS RES INST.
Dawson PE, Kent SBH, Muir TW;
WPI; 96-506095/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R38087 standard; protein; 67 AA.
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Local Similarity 100.0%;
les 12; Conservative
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Best Local Similarity 100.0%;
Matches 12; Conservative
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04-DEC-1991; US-801578.
                                                                                          04-MAY-1995; U05668
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                                                     WO9634878-A1.
                                                                         07-NOV-1996.
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New interleukin-8 analogues modified in specified region - used as neutrophil activators or for blocking effect of IL-8 on neutrophil(s) for treatment of inflammation Claim 19; Page 29; 47pp; English.

The sequence 1s that of an analogue of interleukin-8 (IL-8) comprising IL-8 residues 6-72. It is able to bind neutrophils and act as a competitive antagonist of IL-8, i.e. it can be used to treat at inflammation, e.g. by intravenous injection or oral admin. It can inflammatory response.

Sequence 67 AA;
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(laim 17: Page 29: 47pp; English.

The sequence is that of an analogue of interleukin-8 (IL-8) comprising

IL-8 residues 5-72. It is able to bind neutrophils and act as a

competitive antagonist of IL-8, i.e. it can be used to treat

inflammation, e.g. by intravenous injection or oral admin. It can

act as a neutrophil activator and so can be used to stimulate an

inflammatory response. It also has strong chemotaxis activity and

Sequence 68 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Clark-Lewis I, Moser B, WPI: 93-196997/24.
New interleukin-8 analogues modified in specified region - used as neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
                                                                                                                                                                                                             13-OCT-1993 (first entry)
Modified human interleukin-8 analogue (6-72).
Analogues; modified; neutrophil activators; antagonists; human; competitive antagonist; IL-8; inflammation; treatment; chemotaxis; activity; stimulation; inflammatory response.
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13-OCT-1993 (first entry)
Modified human interleukin-8 analogue (5-72).
Analogues; modified; neutrophil activators; antagonists; human;
competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
activity; stimulation; inflammatory response.
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Pred. No. 7.23e-03;
0; Mismatches 0; Indels
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Pred. No. 7.23e-03;
                                                                                                                                                       R38086 standard; protein; 67 AA.
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(BIOM-) BIOMEDICAL RES CENT LTD.
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03-DEC-1992; CA0528.
04-DEC-1991; US-801578.
(BIOM-) BIOMEDICAL RES CENT LTD.
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Best Local Similarity 100.0%;
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Matches 12; Conservative
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1 ELCLDPKENWVQ 12
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03-DEC-1992; CA0528.
04-DEC-1991; US-8015
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Ouery Match
Best Local Similarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            inflammatory response.
Sequence 69 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26
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                                                                                                                           44 elcldpkenwvg 55
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The sequence is that of an analogue of interleukin-8 (IL-8) comprising IL-8 residues GID5 (6-72). It is able to bind neutrophils and act as a competitive antagonist of IL-8, i.e. it can be used to treat inflammation, e.g. by intravenous injection or oral admin. It can
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 15; Page 29; 47pp; English.
The sequence is that of an analogue of interleukin-8 (IL-8) comprising IL-8 residues ILe5 (6-72). It is able to bind mentrophils and act as a competitive antagonist of IL-8, i.e. it can be used to treat inflammation, e.g. by intravenous injection or oral admin. It can act as a neutrophil activator and so can be used to stimulate an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New interleukin-8 analogues modified in specified region - used as neutrophil activators or for blocking effect of IL-8 on neutrophil(s)
                                                                                                                                                                                                                                                                                                                                                                                                              neutrophil activators of for blocking effect of IL-8 on neutrophil(s) for treatment of inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Modified human interleukin-8 analogue Gln5 (6-72).
Analogues; modified; neutrophil activators; antagonists; human; competitive antagonist; IL-8; inflammation; treatment; chemotaxis; activity; stimulation; inflammatory response.
                                                                                                                                                                                                                                                                                                                                                                                                  New interleukin-8 analogues modified in specified region - used as
                                                                                                                                                 13-0cT-1993 (first entry)
Modified human interleukin 8 analogue Ile5 (6-72).
Analogues; modified; neutrophil activators; antagonists; human; competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
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Pred. No. 7.23e-03;
0; Mismatches 0; Indels
                                                                                                                                                                                                            activity; stimulation; inflammatory response.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                            /note= "Leu5 -> Ile"
                                                                                                                                                                                                                                             Location/Qualifiers
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04-DEC-1991; US-801578.
(BIOM-) BIOMEDICAL RES CENT LTD.
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R38083 standard; protein; 68 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        inflammatory response.
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                       44 elcldpkenwvq 55
                                        1 ELCLDPKENWVQ 12
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03-DEC-1992; CA0528.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       68 AA;
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WPI; 93-196997/24.

New interleukin-8 analogues modified in specified region - used as neutrophil activators or for blocking effect of IL-8 on neutrophil(s) for treatment of inflammation claim 9; Page 29; 47pp; English.

The sequence is that of an analogue of interleukin-8 (IL-8) comprising IL-8 residues 4-72. It is able to bind neutrophils and act as a competitive antagonist of IL-8, i.e. it can be used to treat inflammation, e.g. by intravenous injection or oral admin. It can act as a neutrophil activator and so can be used to stimulate an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Clark-Lewis I, Moser B;
WPI; 93-19697724
New interleukin-8 analogues modified in specified region - used as
new interleukin-8 analogues for blocking effect of IL-8 on neutrophil(s)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Modified human interleukin-8 analogue Ala4Ala5 (6-72).
Analogues, modified; neutrophil activators; antagonists; human;
competitive antagonist; IL-8; inflammation; treatment; chemotaxis;
                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Modified human interleukin-8 analogue (4-72).
Analogues; modified; neutrophil activators; antagonists; human; competitive antagonist; IL-8; inflammation; treatment; chemotaxis; activity; stimulation; inflammatory response.
act as a neutrophil activator and so can be used to stimulate an inflammatory response. Sequence 68 AA;
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                                                                                             Score 99, DB 7; Length 68; Pred. No. 7.23e-03; 0; Indels
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Pred. No. 7.23e-03;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "Glu4 -> Ala"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note= "Leu5 -> Ala"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
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03-DEC-1992; CA0528.
04-DEC-1991; US-801578.
(BIOM-) BIOMEDICAL RES CENT LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .T
R38082 standard; protein; 69 AA.
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04-DEC-1991; US-801578.
(BIOM-) BIOMEDICAL RES CENT LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                         R38081 standard; protein; 69 AA.
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"His is a novel chemokine-like protein (IL-8MB), based on This is a novel chemokine-like protein (IL-8MB), based on Interleukin-8 (IL-8), with 4 conserved cysteine residues. The Interleukin-8 (IL-8), with 4 conserved cysteine residues. The protein has been modified to include a mutation in the list sequence EIR (R99828, claim 10) before the 1st Cys residue, and sequence EIR (R99828, claim 10) before the 1st Cys residue. A version with an N-terminal Met residue. Sequence the 1st Gys residue. A version with an N-terminal Met residue. Sequence has been derived by mutagenesis of myelosuppressive activity. The novel chemokine shows similar active damains are required for altagonist to the wild-type, and may be used as an interleukin-8-contains the new of wild-type call before call the call of the contains and adjunctive artagonist to enhance myeloid cell proliferation, as an adjunctive gent in chemotherapy or radiation therapy, in therapy of myelogenous leukaemia, polycythaemia vera or hypermegakaryocytopoletic disorders,
                                                                                                                                                                                                                                                   ö
for treatment of inflammation Claim 10; Page 29; 47pp; English.

The sequence is that of an analogue of interleukin-8 (IL-8) comprising IL-8 residues Ala4Ala5 (6-72). It is able to bind neutrophils and act as a competitive antagonist of IL-8, i.e. it can be used to treat inflammation, e.g. by intravenous injection or oral admin. It can act as a neutrophil activator and so can be used to stimulate an inflammatory response.
                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                     22-waR-1997 (first entry)
Chemokine-like protein IL-8M8.
Human, chemokine: IL-8M8: interleukin-8; mutant; active domain;
interleukin-8-antagonist; myelosuppressive; cytostatic; antitumour;
leukeamia: polycythaemia vera; hypermakaryocytopoiesis; therapy;
diagnostic; myeloid progenitor cell; expansion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'note= "Mutated active domain (R99826, claim 5)"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "Conserved sequence (R99824, claim 1)"
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                                                                                                                                                                                                    Score 99; DB 7; Length 69;
Pred. No. 7.23e-03;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          'note= "Conserved Cys residue"
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                                                                                                                                                                                                                                                                                                                                                                                            R99805 standard; peptide; 72 AA.
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Best Local Similarity 100.0%;
Matches 12; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            myelo-suppressive activity
Claim 6; Page 78; 115pp; E
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Daly TJ, Larosa GJ;
                                                                                                                                                                                                                                                                            45 elclápkenwvg 56
                                                                                                                                                                                                                                                                                                 1 ELCLDPKENWVQ 12
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WPI; 96-239500/24.
                                                                                                                                                             69 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             misc_difference 9
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                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        factor and treat inflammation
Claim 1: Column 4: 8pp: English.
A novel antibody, preferably a monoclonal Ab (MAb), has specific
binding affinity for a neutrophil chemotactic factor (NCF) having
the present amino-terminal sequence. The MAb can be used to
quantify, detect or localise the NCF in a sample, and treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Anti-neutrophil chemotactic factor antibody - useful to assay for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-100-1990 (first entry)
Sequence of a synthetic neutrophil chemotactic polypeptide (NCF)
Inflammation; anti-neutrophil chemotactic polypeptide antibody.
 or to detect, isolate and expand progenitor cells ex vivo for transplantation. The protein does not show adverse neutrophil activation or inflammatory side-effects.
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                                                                             Score 99; DB 20; Length 72;
Pred. No. 7.23e-03;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                         Neutrophil chemotactic factor amino-terminal peptide. Antibody; monoclonal; neutrophil chemotactic factor; amino-terminal; quantification; detection; localisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 99; DB 27; Length 72;
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0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                        USSOSULO.

16-DEC-1997.

16-DEC-1995; 467612.

R 16-MAR-1988; US-169033.

R 06-JUN-1995; US-467612.

A (USSH) US DEPT HEALTH & HUMAN SERVICES.

PI Appella E, Leonard EJ, Matsushima K, Oppenheim J, Charalter SD, Yoshimura T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic neutrophil chemo:tactic factor
                                                                                                                                                                                                                               W41519 standard; peptide; 72 AA. W41519;
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P81838 standard, peptide, 72 AA.
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16-MAR-1988; US-169033.
(USSH) US DEPT HEALTH & HUMAN.
MALSUSHIMA K, HOSHIMURA I, Le
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 8; 11pp; English.
                                                                            Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                              14-APR-1998 (first entry)
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                                                                                                                                                                                                                                                                                                                           treatment; inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        conditions.
                                                                                                                                      48 elcldpkenwvg 59
                                                                                                                                                         1 ELCLDPKENWVQ 12
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US-09-150-813-40.rag

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Sequence
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                                                                                                                                                                                                                                                                                                                                New mutant interleukin-8 poly;peptide(s) - used for modulating interleukin-8 receptor-mediated biological responses.
Claim 1; Page 35; 40pp; English.
The sequences given in W25701-14 represent interleukin-8 (IL-8) mutants which are capable of binding to IL-8 receptors. They can be used for modulating an IL-8 receptor-mediated biological response.
The mutanions were introduced into the human IL-8 coding sequence by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-ocr-1997 (first entry)
Mutant human IL-8, S140.
Interleukin-8: IL-8, IL-8 receptor-mediated biological response;
mutant, IL-8 receptor; overlap PCR.
                                                                                                                                         17-OCT-1997 (first entry)
Mutant human II-8, F21N.
Interleukin-8; IL-8, IL-8 receptor-mediated biological response;
mutant; IL-8 receptor; overlap PCR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New mutant interleukin-8 poly:peptide(s) - used for modulating interleukin-8 receptor-mediated biological responses.
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          Length 72;
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                                                                                                                                                                                                                                                                                          (CHIR) CHIRON CORP.
Blaney J, Shyamala V, Siani M, Tekamp-Olson P;
Wernette-Hammond ME;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 99; DB 23; I
Pred. No. 7.23e-03;
0; Mismatches 0;
          Score 99; DB 26; I
Pred. No. 7.23e-03;
0; Mismatches 0;
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                                                                                                                      W25713 standard; protein; 72 AA.
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                                                                                                                                                                                                                 /label= F21N
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Local Similarity 100.0%;
les 12; Conservative
            Ouery Match
Best Local Similarity 100.0%;
Matches 12; Conservative
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18-JUN-1996; U10537.
05-APR-1996; US-628455.
20-JUN-1995; US-002774.
18-OCT-1995; US-005385.
                                                                                                                                                                                                                                                 18-JUN-1996; U10537.
05-APR-1996; US-628455.
20-JUN-1995; US-002774.
18-OCT-1995; US-005385.
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WPI; 97-087095/08.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       48 elcldpkenwvg 59
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                                                                   1 ELCLDPKENWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         misc_difference 14
                                                                                                                                                                                                                                                                                                                              WPI; 97-087095/08.
                                                                                                                                                                                                        misc_difference 21
                                                                                                                                                                                                                                                                                                                                                                                                                          72 AA;
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                                                                                                                                                                                     Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                overlap PCR
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                                                                                                                                                                                                                                          09-JAN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                 W25713;
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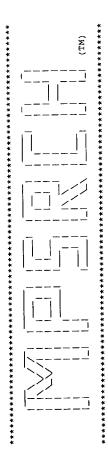
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Claim 1; Page 35; 40pp; English.

The sequences given in W25701-14 represent interleukin-8 (IL-8) mutants which are capable of binding to IL-8 receptors. They can be used for modulating an IL-8 receptor-mediated biological response. The mutations were introduced into the human IL-8 coding sequence by
Claim 1; Page 35; 40pp; English.

The sequences given in W25701-14 represent interleukin-8 (IL-8)
mutants which are capable of binding to IL-8 receptors. They can
be used for modulating an IL-8 receptor-mediated biological response.

The mutations were introduced into the human IL-8 coding sequence by
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                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mutant human iL-8, D45R.
Interleukin-8; IL-8; IL-8 receptor-mediated biological response;
mutant; IL-8 receptor; overlap PCR.
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Pred. No. 7.23e-03;
0; Mismatches 0; Indels
                                                                                                                                                                                    Score 99; DB 23; Length /4;
Pred. No. 7.23e-03;
............. 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CHIR ) CHIRON CORP.
Blaney J, Shyamala V, Siani M, Tekamp-Olson P;
Wernette-Hammond ME;
WPI, 97-087095/08.
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                                                                                                                                                                                                                                                                                                                                                                                                                              JT 15
W25710 standard; protein; 72 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity 100.0%;
hes 12; Conserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label= D45R
                                                                                                                                                                                                      Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W25710;
17-OCT-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-JAN-1997.
18-JUN-1996; U10537.
05-APR-1996; US-628455.
20-JUN-1995; US-002774.
18-OCT-1995; US-005385.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     48 elcldpkenwvg 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 ELCLDPKENWVQ 12
                                                                                                                                                                                                                                                                                                         48 elcldpkenwvg 59
                                                                                                                                                                                                                                                                                                                                                     1 ELCLDPKENWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    72 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  misc_difference 4
                                                                                                                                                                72 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Job time : 20 secs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9700601-A2.
                                                                                                                                      overlap PCR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
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protein - protein database search, using Smith-Waterman algorithm MPsrch_pp

Fri Feb 4 17:15:49 2000; MasPar time 3.23 Seconds 105.016 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-41 (1-12) from US09150813.pep 92 Description: Perfect Score:

1 EICLDPEAPFLK 12 Sequence:

PAM 150 Gap 15

Scoring table:

77977 seqs, 28268293 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

1:swissprot swiss-prot37 Database:

Mean 25.651; Variance 29.190; scale 0.879 Statistics: Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Pred. No.	3.75e-10	9.29e-09	2.78e-05	2.90e-04	1.61e-03	2.83e-03	1.49e - 02	1.49e - 02	1.49e - 02	2.57e-02	2.57e-02	2.57e-02	7.50e-02	7.50e-02	7.50e-02	7.50e-02	7.50e-02	7.50e-02	1.27e-01	2.14e-01	2.14e-01	2.14e - 01	2.14e-01
Description	NEUTROPHIL ACTIVATING	GRANULOCYTE CHEMOTACTI	GRANULOCYTE CHEMOTACTI	CYTOKINE LIX PRECURSOR	ALVEOLAR MACROPHAGE CH	CYTOKINE LIX PRECURSOR	MACROPHAGE INFLAMMATOR	PLATELET BASIC PROTEIN	HYPOTHETICAL PROTEIN K	GROWTH REGULATED PROTE	PLATELET BASIC PROTEIN	DEOXYRIBOSE-PHOSPHATE	MACROPHAGE INFLAMMATOR	GROWTH REGULATED PROTE	MACROPHAGE INFLAMMATOR	MACROPHAGE INFLAMMATOR	GROWTH REGULATED PROTE	GROWTH REGULATED PROTE	HYPOTHETICAL 68.6 KD P	GROWTH REGULATED PROTE	GROWTH REGULATED PROTE	GROWTH REGULATED PROTE	HYPOTHETICAL 13.1 KD P
OI	EN78 HUMAN	GCP2_HUMAN	GCP2_BOVIN	LIX MOUSE	AMC2 PIG	LIX RAT	MIP2_RAT	PF4L_PIG	Y133_HUMAN	GROG BOVIN	PF4L_HUMAN	DEOC_SYNY3	MI2A_RAT	GRO MOUSE	MIP2_MOUSE	MI2B RAT	GROA_BOVIN	GROB BOVIN	YAOA SCHPO	GRO RAT	GRO CAVPO	GROZ_RABIT	YOGR_BPT4
DB		7	Н	н	Н	-	Н	Н	Н	г	Ч	Н	1	-	-	Н	Н	7	-	-	-	Н	г
Length	114	114	75	132	117	130	100	119	1524	98	128	225	9	96	100	100	104	104	599	96	104	104	111
Query Match	100.0	94.6	80.4	76.1	72.8	71.7	68.5	68.5	68.5	67.4	67.4	67.4	65.2	65.2	65.2	65.2	65.2	65.2	64.1	63.0	0.0	63.0	63.0
Score	92	87	74	7.0	67	9	63	63	63	62	62	62	09	0.9	0 9	09	09	0	0 f	, tr	0 00	0.00	28
Result No.	: -	10	۳ ۳	• ₹	ى .	n ve	۰ ۲	- α	σ	0.0		12	1.	77		- 1	17	ά	0 0	25	25	20	23

3.59e-01 3.59e-01 3.59e-01 3.59e-01	5.97e-01 5.97e-01 9.87e-01	1.62e+00 2.65e+00 2.65e+00	4.29e+00 4.29e+00 4.29e+00	4.29e+00 6.91e+00 6.91e+00	6.91e+00 6.91e+00 1.10e+01 1.10e+01
EMBRYO FIBROBLAST PROT PROBABLE NONSTRUCTURAL ADP-L-GLYCERO-D-MANNO-	PHOTOSYSTEM II MANGANE PROCOLLAGEN ALPHA 1(II GROWTH REGULATED PROTE	HYPOTHETICAL 46.2 KD P HYPOTHETICAL 20.8 KD P DIS3 PROFIEIN	PHOTOSTEM II MANGANE MUSCLE-CADHERIN PRECUR MUSCLE-CADHERIN PRECUR	ALPHA-MANNOSIDASE IIX INTERLEUKIN-8 PRECURSO INTERLEUKIN-8 PRECURSO COMMUNICATION PROPORT	HYPOTHETICEL 17.6 KD PADP-L-GLYCERO-D-MANNO-PLATELET FACTOR 4 (PF-NON-RECEPTOR TYROSINE-
EMF1_CHICK NS3_SIDEV RFAD_SALTY RFAD_ECOLT	PSBO_ANANI CA12_MOUSE GRO_CRIGR	YXAH_BACSU YIEP_ECOLI	PSBO_ANASP CADF_MOUSE CADF_HUMAN	MA2X_HUMAN IL8_CERTO IL8_MACMU	CKC_HUMAN YBAK_BACSU RFAD_HAEIN PLF4_SHEEP TYK2_HUMAN
103 167 310	277 1459 101	402 181	273 730 814	101	107 147 308 85 1187
62.0	00000	57.73	56.5		555.4 565.4 54.3 54.3
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25 25 26	3008	33.2 33.2 33.2 33.2 33.2 33.2 33.2 33.2	2 3 3 4 4 5 5 4 7 6 6 7	8 8 8 9 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	4 4 4 4 4 10 6 4 6

ALIGNMENTS

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                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -!- FUNCTION: CHEMOTACTIC FOR NEUTROPHIL GRANULOCYTES.
-!- SUBCELLULAR LOCATION: SECRETED.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROOST P., DE WOLF-PEETERS C., CONINGS R., OPDENAKKER G., BILLIAU A., "Identification of a novel granulocyte chemotactic protein (GCP-2) from human tumor cells. In vitro and in vivo comparison with natural J. IMMUNOL. 150:1000-1010(1993).
                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROOST P., WUYIS A., CONINGS R., LENAERTS J.-P., BILLIAU A., DODRHAKER G., VAN DAMME J.;
"Human and bovine granulocyte chemotactic protein-2: complete acid sequence and functional characterization as chemokines.";
BIOCHEMISTRY 32:10170-10177(1993).
                                                                                                                                                                                                  POTENTIAL.
NEUTROPHIL ACTIVATING PROTEIN ENA-78.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE OF 38-114 FROM N.A. FROYEN G., MITERA T., HAELENS A., WUYIS A., OPDENNKKER G., VAN DAMME J., BILLIAU A.; SUBMITTED (JAN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                     ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EUKARTOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                    Score 92; DB 1; Length 114; Pred. No. 3.75e-10;
                                                                                                                                                                                                                                                                                                                  0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
ROVAI L.E., HERSCHMAN H.R., SMITH J.B.;
SUBMITTED (APR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-APR-1993 (REL. 25, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
GRANULOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (GCP-2).
                                                                                                                                                                                                                             Y SIMILARITY.

Y SIMILARITY.

390290D2 CRC32;
                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                             PRT;
                                                                                                                                                                                               1 ? PO
? 114 NE
49 9 BY
51 91 BY
114 AA; 11972 MW;
                                                                                                                                                                                                                                                                                    Match
Local Similarity 100.0%;
                                                                                   EMBL; X78686; G471243; -.
                                                                                                                                                                                                                                                                                                               12; Conservative
                                                                                                EMBL; L37036; G607031; -
                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                      PFAM; PF00048; i18; 1.
HSSP; P02775; 1NAP.
                                                                                                                                                                                                                                                                                                                                      89 EICLDPEAPFLK 100
                                                                                                                                                                                                                                                                                                                                                        HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IISSUE-OSTEOSARCOMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "ISSUE = OSTEOSARCOMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 38-112.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 94001982.
                                                                                                                                                                                  CYTOKINE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 38-57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 93139489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SCYB6 OR GCP2
                                                                                                                                                                                                                                                                                                                                                                                                                        GCP2_HUMAN
P80162;
                                                                                                                                                                                                                           DISULFID
                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
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                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GRANULOCYTE CHEMOTACTIC PROTEIN 2.
MISSING (N-TERMINAL PROCESSING VARIANT).
MISSING (N-TERMINAL PROCESSING VARIANT).
BY SIMILARITY.
BY SIMILARITY.

4 ACIOESC CRC32;
                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MISSING (N-TERMINAL PROCESSING VARIANT).
MISSING (N-TERMINAL PROCESSING VARIANT).
MISSING (N-TERMINAL PROCESSING VARIANT).
MISSING (N-TERMINAL PROCESSING VARIANT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOS.
                                                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                    Score 87; DB 1; Length 114;
Pred. No. 9.29e-09;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 75;
                                                                                                                                                                       HEPARIN-BINDING; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 74; DB 1; Los
Pred. No. 2.78e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                   01-FEB-1994 (REL. 28, CREATED)
01-FEB-1994 (REL. 28, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
GRANULOCYTE CHEMOTACTIC PROTEIN 2 (GCP-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BY SIMILARITY.
BY SIMILARITY.
B747167F CRC32;
                                                                                                 EMBL; Y08770; E283124; '-, PIR; A54188; A54188. MMIM; 138965; -, PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1. PFAM; PF00048; 118; 1. HSSP; P10889; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HEPARIN-BINDING
                                                                                                                                                                                                                 42 M
45 M
75 B
91 B3 11897 MW;
                                                                                         EMBL; U83303; G1916230; -.
                                                                                                                                                                                                                                                                                     94.6%;
83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7931 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80.4%;
                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                   37
114
39
                                                                                                                                                                     CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                              89 QVCLDPEAPFLK 100
                                                                                                                                                                                                                                                                                                                                            CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                              114 AA;
                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 94001982.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    75 AA;
                                                                                                                                                                                             38
38
38
49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE.
TISSUE=KIDNEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCYB6 OR GCP2
                                                                                                                                                                                                                                                                                                            10;
                                                                                                                                                                                                                                                                                                                                                                                               GCP2_BOVIN
                                                                                                                                                                                                                                        DISULFID
                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                        VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                              VARIANT
                                                                                                                                                                                SIGNAL
                                                                                                                                                                                                                 VARIANT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         VARIANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VARIANT
                                                                                                                                                                                             CHAIN
                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                      RESULT
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Matches

RESULT

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=SPRAGUE-DAWLEY;
KELNER G.S., MACIEJEWSKI-LENOIR D., LEE E.D., MAKI R.A.;
KELNER G.S., MACIEJEWSKI-LENOIR D., LEE E.D., MAKI R.A.;
SUBMITTED (FEB-1997) TO EMBL/GENBARK/DDBJ DATA BANKS.
-; FONGTION: MAY PARTICIPATE IN THE RECRUITMENT OF INFLAMMATORY CELLS
BY INJURED OR INFECTED TISSUE (BY SIMILARITY).
-; SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                    -!- TISSUE SPECIFICITY: ALVEDIAR MACROPHAGES.
-!- INDUCTION: BY LIPOPOLYSACCHARIDE.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
MEDLINE; 93041741.
GOODMAN R.B., FOSTER D.C., MATHEWES S.L., OSBORN S.G., KUIJPER J.L.,
FORSTROM J.W., MARTIN T.R.;
"Molecular cloning of porcine alveolar macrophage-derived neutrophil
chemotactic factors I and II; identification of porcine IL-8 and
another intercrine-alpha protein.";
BIOCHEMISTRY 31:10483-10490(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
                                                                                                                                                                                                                                                                 J. BIOL. CHEM. 266:8455-8463(1991).
-i- FUNCTION: HAS CHEMOTACTIC ACTIVITY FOR PORCINE, AND IN A LESSER EXTENT, FOR HUMAN NEUTROPHILS.
                                                                                                                                                                                                           GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R., "Identification of two neutrophil chemotactic peptides produced by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 1; Length 117;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. 1.61e-03;
3; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9C31EF8E CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 130 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PIR; B44253; B44253.
PIR; B39819; B99819.
PROSTIE: PS000471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; il8; 1.
HSSP; P02775; INAP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 67;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           78 B
94 B
12343 MW;
                                                                                                                                                                                                                                                       porcine alveolar macrophages
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 66.7%;
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                       C-X-C) (CHEMOKINE CXC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; M99368; G164326; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RATTUS NORVEGICUS (RAT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOKINE LIX PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 92 EVCLDPKAPLIK 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 EICLDPEAPFLK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             52
54
117 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                            SEQUENCE OF 37-66.
                                                                                                                                                                                STRAIN-YORKSHIRE;
MEDLINE; 91217086.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LIX_RAT P97885;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δλ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        this SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its most by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                      mediators, including a new C-x-c chemokine.";
J. BIOL. CHEM. 270:16756-16765(1995).
-!- FUNCTION: MAY PARTICIPATE IN THE RECRUITMENT OF INFLAMMATORY CELLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BY INJURED OR INFECTED TISSUE.
-!- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR II PRECURSOR (AMCF-II).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; SUIFORMES; SUINA; SUIDAE; SUS.
                                                                                                                                                                                                                                                                                                                                                                                                                    SMITH J.B., HERSCHWAN H.R.; "Glucocorticoid-attenuated response genes encode intercellular
                    ;
0
                                                                                                                                                                                                                                                                                                                          EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1; Indels
                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Y SIMILARITY.
Y SIMILARITY.
58C45B6B CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 70; DB 1; Le
Pred. No. 2.90e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-JUL-1991 (REL. 19, CREATED)
01-JUL-1993 (REL. 26, LAST SEQUENCE UPDATE)
01-JUL-1993 (REL. 26, LAST ANNOTATION UFDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     117 AA.
                                                                                                                                                                                                               01-0CT-1996 (REL. 34, CREATED)
01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A., AND SEQUENCE OF 37-66.
                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL.
CYTOKINE LIX.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MGD; MGI:1096868; SCYB5.
PROSITE: PSO0471; SMALL_CYTOKINES_CXC; 1.
PRAM; PPO0408; 118; 1.
HSSP; PO2775; INAP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred.
                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     132 AA; 14190 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            larity 75.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; U27267; G950159; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                            Conservative
                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                         CYTOKINE LIX PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       93 EVCLDPEAPVIK 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MUS MUSCULUS (MOUSE).
                                                                52 EVCLDPEAPLIK 63
                                                                                         Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOKINE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                               95348101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE-LUNG;
                              <u>.</u>
ن
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AMC2_PIG
P22952;
                                                                                                                                                                                  LIX_MOUSE
P50228;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
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0; Gaps

1; Indels

SIGNAL

Matches

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                                                                                                                                                                                                                                                                                                                                       ·;
                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FENG L., XIA Y., YOSHIMURA T., WILSON C.B.; "Modulation of neutrophil influx in glomerulonephritis in the rat with anti-macrophage inflammatory protein-2 (MIP-2) antibody."; J. CLIN. INVEST. 95:1009-1017(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HUANG S., PAULAUSKIS J.D., GODLESKI J.J., KOBZIK L.;
"Expression of macrophage inflammatory protein-2 and KC mRNA in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 94318061.
NAKAGAWA H., KOMORITA N., SHIBATA F., IKESUE A., KONISHI K., FUJIOKA M., KATO H.;
"Identification of cytokine-induced neutrophil chemoattractants
                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-APR-1993 (REL. 25, CREATED)
01-APR-1993 (REL. 25, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 2 PRECURSOR (MIP2) (CINC-3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
STRAIN=CD; TISSUE=LUNG;
FARONE A., FARONE M., SHI M.M., KOBZIK L., PAULAUSKIS J.D.;
SUBMITTED (MAR-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                      Length 130;
                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUBMITTED (APR-1992) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                   Score 66; DB 1; L
Pred. No. 2.83e-03;
5; Mismatches 0
                                                                                                                                                                                                                                      BY SIMILARITY.
BY SIMILARITY.
5F6C874C CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 100 AA.
                                                                                                                                            PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1. PFAM; PF00048; 118; 1. HSSP; P10889; 1M12.
                                                                                                                                                                                                                            CYTOKINE LIX.
                                                                                                                                                                                                             POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            pulmonary inflammation.",
AM. J. PATHOL. 141:981-988(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=FISHER 344; TISSUE=LUNG;
                                                                                                                                                                                                                                                                 130 AA; 14263 MW;
                                                                                                                                                                                                                                                                                                Match 71.7%;
Local Similarity 58.3%;
                                                                                                                            EMBL; U90448; G1899248; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 39-91 FROM N.A.
                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DIKAIN=CD-1; TISSUE=LUNG; MEDLINE; 93035653.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RATTUS NORVEGICUS (RAT)
                                                                                                                                                                                                                                                                                                                                                     91 NVCLDPQAPLIK 102
                                                                                                                                                                                                                                                                                                                                                                      ::||||:||
1 EICLDPEAPFLK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 32-100.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                        CYTOKINE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 95189993.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=FISHER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN-WISTAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DRISCOLL K.;
                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                          MIP2_RAT
                                                                                                                                                                                                      SIGNAL
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                                                                                        ö
                                                                                                                                                                                                                                  -1- TISSUE SPECIFICITY: AT LEAST EXPRESSED IN THE LUNG AND TRACHEA.
-1- INDUCTION: IN LUNG, BY LIPOPOLYSACCHARIDE OR INFLAMMATION.
-1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
 (CINC), rat GRO/CINC-2 alpha and CINC-2 beta, produced by granulation tissue in culture: purification, complete amino acid sequences and characterization.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POWER C.A., PROUDFOOT A.E.I., MAGNENAT E., BACON K., WELLS T.N.C.; "Molecular cloning and characterisation of a neutrophil chemotactic protein from porcine platelets."; EUR. J. BIOCHEM. 221:713-719(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MACROPHAGE INFLAMMATORY PROTEIN 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 100;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 63; DB 1; L. Pred. No. 1.49e-02; 4; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1AE9A34E CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
PLATELET BASIC PROTEIN PRECURSOR (PBP).
                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; X65647; G56666; --
EMBL; S77604; G998407; --
EMBL; U45965; G1228141; --
EMBL; S2685; E62497; --
PRS; S21467; S31467;
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM: PF00048; 118; 1.
HSSP; P10889; 1M12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT; 119 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ARTIODACTYLA; SUIFORMES; SUINA; SUIDAE; SUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A., AND SEQUENCE OF 40-119.
                                          BIOCHEM. J. 301:545-550(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100 AA; 10783 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SECT
                                                                                                                                                                                                                                                                              C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               68.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity 63.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100
62
78
                                                                   SEQUENCE OF 32-59.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |:||:|||:|
| EICLDPEAPFL 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 76 EVCLNPEAPLY 86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=PLATELET;
MEDLINE; 94229068.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUS SCROFA (PIG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PF4L_PIG
P43030;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL
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g
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POTENTIAL.

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PF4L_HUMAN P02775;
                                                                                                                                                                                                               GROG_BOVIN
046675;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE
          TRANSMEM
TRANSMEM
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TRANSMEM
                                                                                             Query Match
TRANSMEM
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                                  TRANSMEM
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                                                                                                                                                                                                                                                                                                                             ó
 -i- FUNCTION: CHEMOATTRACTANT FACTOR FOR NEUTROPHILS.
-i- MASS SPECTROMETRY: MW-8597.5; METHOD-ELECTROSPRAY: RANGE-40-119.
-i- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "MAGNET., SEXI N., TANAKA A., ISHIKAWA K.-I., NOMURA N.;
"Prediction of the coding sequences of unidentified human genes. IV.
The coding sequences of 40 new genes (KIAA0121-KIAA0160) deduced by
analysis of cDNA clones from human cell line KG-1.";
DNA RES. 2:167-174(1995).
-: SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                       CYTOKINE; GROWTH FACTOR; CHEMOTAXIS; MITOGEN; PLATELET; SIGNAL.
                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                      Length 119;
                                                                                                                                                                                                                                                                                                                              1; Indels
                                                                                                                                                                                                                                              PLATELET BASIC PROTEIN.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                       Score 63; DB 1; L
Pred. No. 1.49e-02;
                                                                                                                                                                                                                                                                                   6D7F3E47 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
HYPOTHETICAL PROTEIN KIAA0133.
                                                                                                                                                                                                                                                                                                                                                                                                                               PRT; 1524 AA.
                                                                                                                                                                                                                                                                                                                                1; Mismatches
                                                                                                                                                                     PROSITE; PSO0471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; 118; 1.
HSSP; P02775; INAP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       POTENTIAL.
POTENTIAL.
POTENTIAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                       PROBABLE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROTEIN; TRANSMEMBRANE.
                                                                                                                                                                                                                                 34 39 PL
40 119 PL
54 80 BY
56 96 BY
119 AA; 12615 MW;
                                                                                                                                                                                                                                                                                                           68.5%;
                                          C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 81.8%;
                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; D50923; G1469189;
                                                                                                                                                              EMBL; X77935; G457754;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HOMO SAPIENS (HUMAN)
                                                                                                                                                                                                                                                                                                                                                           95 ICLDPEAPRIK 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
TISSUE=BONE MARROW;
MEDLINE; 96127530.
                                                                                                                                                                                                                                                                                                                                                                                   2 ICLDPEAPFLK 12
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TRANSMEM
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                                                                                                                                                                                                                                                                                       SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
YOSHIMURA T., MODI W.S.,
SUBHITUED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
STANTIED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-1. SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FUGU. 1986 (REL. 01, CREATED)
01-NOV-1991 (REL. 20, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANONOTATION UPDATE)
15-DEC-1998 (REL. 37, LAST ANONOTATION UPDATE)
16-DEC-1998 (REL. 37, LAST ANONOTATION UPDATE)
16-DEC-1998 (REL. 37, LAST ANONOTATION UPDATE)
16-DEC-1998 (REL. 30, LAST ANONOTATION UPDATE)
17-DEC-1998 (REL. 30, LAST ANONOTATION UPTROPHIL-ACTIVATING
18-DEP OR CTAP3 OR TGB1 OR THBGB1.
19-DEP OR CTAP3 OR TGB1 OR THBGB1.
19-DEP OR CTAP3 (HUMAN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GROWTH REGULATED PROTEIN HOMOLOG GAMMA.
BY SIMILARITY.
BY SIMILARITY.
ECCC2B4C CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-DEC-1998 (REL. 37, CREATED)
15-DEC-1998 (REL. 37, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
GROWTH REGULATED PROTEIN HOMOLOG GAMMA PRECURSOR (GRO-GAMMA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2; Indels
                                                                                                                                                                                                                                                                                                                              Length 1524;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 98;
                                                                                                                                                                                                                                                                                Score 63; DB 1; Lengua -
Pred. No. 1.49e-02;
Tred. No. 1.5ss 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; U95811; G2735493; --
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
29
POTENTIAL PROTEIN H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 62; DB 1; Le
Pred. No. 2.57e-02;
                                                                                                                                                                                                        POTENTIAL.
W; E074D413 CRC32;
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                                                                                                                          POTENTIAL.
                                                                                                                                                                   POTENTIAL.
                                                                                 POTENTIAL.
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10393 MW;
906 926
93 1013
1150 1170
1310 1330
1335 1355
1462 1482
1524 AA; 170569 M
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                                                                                                                                                                                                                                                                                                                                                68.5%;
                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 33.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                  4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1479 DLCIEPDVQFLR 1490
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Best Local Similarity
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MAJUMDAR S., GONDER D., KOUTSIS B., PONCZ M.; "Characterization of the human beta-thromboglobulin gene. Comparison with the gene for platelet factor 4.", J. BIOL. CHEM. 266:5785-5789(1991).
                                                                                                                                                                                                                                                                                         MEDLINE; 89229374.
WENGER R.H., WICKI A.N., WALZ A., KIEFFER N., CLEMETSON K.J.;
WICHORING of CDNA cooding for connective tissue activating peptide III
from a human platelet-derived lambda gt11 expression library.";
BLOOD 73:1498-1503(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CASTOR C.W., MILLER J.W., WALZ D.A.; "Structural and biological characteristics of connective tissue activating peptide (CTAP-III), a major human platelet-derived growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Characterization of human platelet basic protein, a precursor form of low-affinity platelet factor 4 and beta-thromboglobulin."; BIOCHEMISTRY 25:1988-1996(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WALZ A., BAGGIOLINI M.;
"A novel cleavage product of beta-thromboglobulin formed in cultures
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Generation of the neutrophil-activating peptide NAP-2 from platelet
basic protein or connective tissue-activating peptide III through
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of stimulated mononuclear cells activates human neutrophils."; BIOCHEM. BIOPHYS. RES. COMMUN. 159:969-981(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 78187279.
BEGG G.S., PEPPER D.S., CHESTERMAN C.N., MORGAN F.J.;
"Complete covalent structure of human beta-thromboglobulin.";
BIOCHEMISTRY 17:1739-1744(1978).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Chemical synthesis, purification, and characterization of two inflammatory proteins, neutrophil activating peptide 1 (interleukin-8) and neutrophil activating peptide."; BIOCHEMISTRY 30:3128-3135(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLARK-LEWIS I., MOSE B., WALZ A., BAGGIOLINI M., SCOTT G.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ., HARRIS M.E., HOLT A.M., LANGE E., HENSCHEN A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROC. NATL. ACAD. SCI. U.S.A. 80:765-769(1983).
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            X-RAY CRYSTALLOGRAPHY OF 59-128.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 44-66 AND 125-128.
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BAGGIOLINI M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE OF 48-126.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SYNTHESIS OF 59-126.
                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                           91170256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE OF 35-53
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89391960.
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OC
REAL THE SEARCH SEAR
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RA MALKOWSKI M.G., Wu J.Y., LAZAR J.B., JOHNSON P.H., EDWARDS B.F.P.;

RT MALKOWSKI M.G., Wu J.Y., LAZAR J.B., JOHNSON P.H., EDWARDS B.F.P.;

RT PEPTIGE-2 (MGL) at 1.9-A resolution.";

LO BIOL. CHEM. 270:77077-7087(1955).

CC 'I- FUNCTION: LA-PF4A STIMULATES DNA SYNTHESIS, MITOSIS, GLYCOLYSIS,

CC 'INTRACELLULAR CAMP ACCUMULATION, PROSTAGLANDIN EZ SECRETION, AND

ALSO STIMULATES THE FORMATION AND SECRETION OF PLASMINOGEN. IT

CC ACTIVATOR BY HUMAN SYNOVIAL CELLS. NAP-2 IS A POTENT

CC ACTIVATOR BY HUMAN STNOVIAL CELLS. NAP-2 IS A POTENT

CC ACTIVATOR BY HUMAN STNOVIAL SAN HOWOTETRAMBR.

CC HEMOAPTRACTANT AND ACTIVATOR FOR NEUTROPHILS.

CC -1- PTM: PROTEOLYTIC REMOVAL OF RESIDUES 1-9 PRODUCES THE ACTIVE

PEPTIDE CONNECTIVE-TISSUE ACTIVATING PEPTIDE III (CTAP III) (LOW-

CC PEPTIDE BETA-THROMBOGLOBULIN, WHICH IS RELEASED FROM PLATELETS

CC -1- PTM: PROTEOLYTIC REMOVAL OF RESIDUES 1-13 PRODUCES THE ACTIVE

CC PEPTIDE BETA-THROMBOGLOBULIN, WHICH IS RELEASED FROM PLATELETS

CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ADPHA FAMILY (SWALL CYTOKINE

CC -1- SIMILARITY: BELONGS TO THE INTERCRINE ADPHA FAMILY (SWALL CYTOKINE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
DEOXYRIBOSE-PHOSPHATE ALDOLASE (EC 4.1.2.4) (PHOSPHODEOXYRIBOALDOLASE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
EHN G., LINDLEY I.J.D., AUER M.; "Purification, crystallization and preliminary X-ray diffraction analysis of recombinant human neutrophil-activating peptide 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PFAM; PF00048; il8; 1 _ _ _ CYTOKINE; CONNECTIVE TISSUE; GROWTH FACTOR; CHEMOTAXIS; MITOGEN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PLATELET BASIC PROTEIN (PBP).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 128;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LA-PF4 / CTAP-III.
BETA-THROMBOGLOBULIN.
                                                                                                     X-RAY CRYSTALLOGRAPHY (1.9 ANGSTROMS) OF 59-128.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 62; DB 1; Le
Pred. No. 2.57e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13894 MW; 15B7D1DF CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL; 3D-STRUCTURE.
                                                                  FEBS LETT. 347:300-303(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-DEC-1998 (REL. 37, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SWISS-2DPAGE; P02775; HUMAN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL, M54995; G181176; -. PIR; A39546; TGHU. PIR; A24448; A24448. PIR; A37382; A37382.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1NAP; 19-DEC-95.
1TVX; 11-JAN-97.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      104 ICLDPDAPRIK 114
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48
59
63
63
128 AA;
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15-DEC-1998
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P73618;
                                                                                                                           MEDLINE:
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MEDLINE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NARAGAWA H., KOMORITA N., SHIBATA F., IKESUE A., KONISHI K.,
NAKAGAWA H., KATO H.,
"Identification of cytokine-induced neutrophil chemoattractants
"Identification of cytokine-induced neutrophil chemoattractants
(CINC), rat GRO/CINC-2 alpha and CINC-2 beta, produced by granulation
tissue in culture: purification, complete amino acid sequences and
                                                                                                                                                                                                                   --- CATALYTIC ACTIVITY: 2-DEOXY-D-RIBOSE 5-PHOSPHATE = 0-GLYCERALDEHYDE 3-PHOSPHATE + ACETALDEHYDE.
--- PATHWAY: NUCLEONIDE AND DEOXYRIBONGLEOTIDE CATABOLISM.
--- PATHWAY: CATAGOTIDE AND DEOXYRIBOSE-PHOSPHATE ALDOLASE FAMILY.
--- SIMILARITY: BELONGS TO THE DEOXYRIBOSE-PHOSPHATE ALDOLASE FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-0CT-1996 (REL. 34, CREATED)
01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-0CT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN-2-ALPHA (MIP2-ALPHA)
                                                                                       KANEKO I., SATO S., KOTANI H., TANAKA A., ASAMIZU E., NAKAMURA Y., MIYAJIMA N., HIROSAWA M., SUGIURA M., SASAMOTO S., KIMUBA T., HOSOUCHI I., MATSUUO A., MURAKI A., NAKAZAKI N., NARUO K., OKUMURA S. SHIMPO S., TAKEUCHI C., WADA I., WATANABE A., YAMADA M., YASUDA M., TABATA S.;
                                                                                                                                                                "Sequence analysis of the genome of the unicellular cyanobacterium Synechocystis sp. strain PCC6803. II. Sequence determination of the entire genome and assignment of potential protein-coding regions."; DNA RES. 3:109-136(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAKAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
"Cytokine-induced neutrophil chemoattractant (CINC)-2 alpha, a n member of rat GRO/CINCs, is a predominant chemokine produced by lipopolysaccharide-stimulated rat macrophages in culture.";
BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EUGARYOTA; METAZOA; CHÓRDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      67.4%; Score 62; DB 1; Length 225; 58.3%; Pred. No. 2.57e-02; ative 2; Mismatches 3; Indels
                           SYNECHOCYSTIS SP. (STRAIN PCC 6803).
BACTERIA; CYANOBACTERIA; CHROOCOCCALES; SYNECHOCYSTIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                225 AA; 23874 MW; 09714B7A CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                68 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   characterization.";
BIOCHEM. J. 301:545-550(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; D90908; G1652744; ...
LYASE; SCHIFF BASE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity 58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RATTUS NORVEGICUS (RAT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 145 EICLDAGVQYLK 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 EICLDPEAPFLK 12
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        (DEOXYRIBOALDOLASE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 1-29.
                                                                           SEQUENCE FROM N.A. MEDLINE; 97061201.
                        DEOC OR SLL1776.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN-WISTAR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MI2A_RAT
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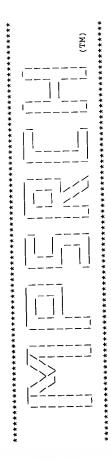
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-!- FUNCTION: PRODUCED BY ACTIVATED MONOCYTES AND NEUTROPHILS AND EXPRESSED AT SITES OF INFLAMMATION.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN=129/SV;
BOZIC C.R., KOLAKOWSKI L.F. JR., VON UEXKULL C., GARCIA-RODRIGUEZ M.,
BOZIC C.R., KOLAKOWSKI L.F. JR., SHOWELL H.J., GERARD N.P., GERARD C.;
SUNRLYIN M.J., BRESLOW R., SHOWELL H.J., GERARD DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GROWTH REGULATED PROTEIN PRECURSOR (PLATELET DERIVED GROWTH FACTOR-INDUCIBLE PROTEIN KC) (SECRETORY PROTEIN N51).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OHMORI Y., FUKUMOTO S., HAMILTON T.A.;
"Two structurally distinct kappa B sequence motifs cooperatively control LPS-induced KC gene transcription in mouse macrophages."
J. IMMUNOL. 155:3593-3600(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RYSECK R.P., MACDONALD-BRAVO H., MATTEI M.-G., BRAVO R.; "Cloning and sequence of a secretory protein induced by growth factors in mouse fibroblasts."; EXP. CELL RES. 180:266-275(1989).
                                                                                                                                                                                                                                                                                                                                                          ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS
                                                                                                                                                                                                                                                                                          Score 60; DB 1; Length 68;
Pred. No. 7.50e-02;
3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FIGURE (REL. 12, CREATED)
01-CCT-1989 (REL. 12, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96 AA.
                                                                                                                                                                                                                                                68 AA; 7670 MW; 8682C815 CRC32;
                                                                                                                                                                                                           CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE.
                                                                  C-x-C) (CHEMOKINE CXC).

PROSITE; PSO0471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; 118; 1.
PYSSP; P10889; 1M12.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C-X-C) (CHEMOKINE CXC)
                                                                                                                                                                                                                                                                                                                                  Local Similarity 63.6%;
                                                                                                                                                                                                                                                                                                         65.2%;
                                                                                                                                                                                                                                                                                                                                                                   7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                             45 EVCLNPQAPRL 55
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| EICLDPEAPFL 11
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GRO_MOUSE
P12850;
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EMBL; X53798; G53129; -.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -1- SUBUNT: HOMOTETRAMER.
-1- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 89098980.
WOLPE S.D., SHERRY B., JUERS D., DAVATELIS G., YURT R.W., CERAMI A.; "Identification and characterization of macrophage inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 9828558.
SHOW W. JERYA L.F., WEST J., LOLIS E., SCHWEITZER B.I.;
Solution structure of murine macrophage inflammatory protein-2.";
BIOCHEMISTRY 37:8303-8318(1998).
I- FONCTION: CHEMOTACTIC FOR HUMAN POLYMORPHONUCLEAR LEUKOCYTES BUT DOES NOT INDUCE CHEMOKINESIS OR AN OXIDATIVE BURST.
                                                                                                                                                                                                                                                                                                           ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TERANF-OLSON P., GALLEGOS C., BAUER D., MCCLAIN J., SHERRY B., PABER M., VAN DEVENTER S., CERAMI A.; "Cloning and characterization of cDNAs for murine macrophage inflammatory protein 2 and its human homologues."; ". EXP. MED. 172:911-919(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MUS MUSCULUS (MOUSE).
EUKARYOTA: METAZOA: CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                      2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                       Score 60; DB 1; Length 96;
                                                                                                                                                           CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                              GROWTH REGULATED PROTEIN. BY SIMILARITY. BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                         01-JUL.1989 (REL. 11, CREATED)
01-FEB-1991 (REL. 17, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 2 PRECURSOR (MIP2).
                                                                                                                                                                                                                                                                                     Pred. No. 7.50e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein 2.";
PROC. NATL. ACAD. SCI. U.S.A. 86:612-616(1989).
                                                                                                                                                                                                                                          36FDD348 CRC32;
                                                                                                                       SMALL_CYTOKINES_CXC; 1.
                                                                                                                                                                                   PROBABLE
                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                          1 24 P
25 96 G
33 59 B
35 75 B
                                                                                                                                                                                                                                                                Query Match 65.2%;
Best Local Similarity 72.7%;
Matches 8; Conservative
            EMBL; J04596; G201043; -.
                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                    MGD; MGI:108068; GRO1.
PROSITE; PS00471; SMALI
PFAM; PF00048; il8; 1.
HSSP; P09341; 1MSH.
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| EICLDPEAPFL 11
                                                                                                                                                                                                                                                                                                                          73 EACLDPEAPLV 83
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MEDLINE; 89098980.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. MEDLINE; 90354792.
                                                                                                                                                                                                                                                                                                                                                                                                                 MIP2_MOUSE
P10889;
                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                       SEQUENCE
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                                                                                                                                                                           SIGNAL
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                      PDB; MIZ; 29-ARR-98
MGD; MGI:96991; MIP2.
PROSITE; PSO0471; SMALL_CYTOKINES_CXC; 1.
PPAM; PF00048; i18; 1.
CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
                                                                                                            MACROPHAGE INFLAMMATORY PROTEIN 2.
                                                                                                                                                                                                        ó:
                                                                                                                                                                   Query Match
Best Local Similarity 70.0%; Pred. No. 7.50e-02;
Matches 7; Conservative 3; Mismatches 0; Indels
                                                                                                      28 100 MACROPHAGE INFLAM
36 62
38 78
100 AA; 10621 MW; 333AC6A4 CRC32;
                                                                                                                                                                                                                                                                                     Search completed: Fri Feb 4 17:16:12 2000
               JH0200
                                                                                                                                                                                                                        77 VCLDPEAPLV 86
                                                                                                                                                                                                                                       :[|||||::
2 ICLDPEAPFL 11
                                                                                                                                                                                                                                                                                                   Job time : 23 secs.
               PIR; JH0200;
                                                                                                                    DISULFID
                                                                                                                                             SEQUENCE
                                                                                                                                DISULFID
g
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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 17:15:11 2000; MasPar time 3.59 Seconds 133.808 Million cell updates/sec

Tabular output not generated.

Run on:

>US-09-150-813-41 (1-12) from US09150813.pep 92 Description: Perfect Score: Sequence: Title:

1 EICLDPEAPFLK 12

PAM 150 Gap 15 Scoring table:

122810 seqs, 40068593 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

Mean 24.908; Variance 32.652; scale 0.763 pir60 1:pir1 2:pir2 3:pir3 4:pir4 Database:

Statistics:

pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Pred. No.	1.45e-08	2.456-07		2.30e-03	1.05e-02	7.586-02	7.586-02	7.58e-02	7.58e-02	1.23e-U1	1.23e-01	1.23e-U1	3.19e-01	3.19e-01	٠	! '	•	8.14e-U1	1.29e+00	1.29e+00	1.29e+00	1.29e+00	T.296+00	
Description	neutrophil-activating	granulocyte chemotact	granulocyte chemotact		m			macrophage intlammato	platelet basic protei	beta-thromboglobulin	deoxyribose-phosphate	hypothetical protein	gro-alpha precursor	macrophage inflammato	u T	gene KC protein - rat	neutrophil chemo-attr	ADP-L-glycero-D-manno	RSV-induced protein -	transformation-induce	nonstructural protein	hypothetical protein	ADP-L-glycero-D-manno	
ID	A55010	A54188	B54188	A57325	B44253	151886	S21467	155614	S42881	TGHU	877105	B71466	A32954	JH0200	S46198	164831	JN0572	JC4066	I50417	A26736	UYPVF3	S75498	JU0299	
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#cross-references MUID:92078844 #accession JH0558

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# ALIGNMENTS

#type complete neutrophil-activating peptide ENA-78 precursor - human neutrophil-activating peptide ENA-78 precursor - human epithelial-derived neutrophil-activating peptide 78 (ENA-78) #formal_name Homo sapiens #common_name man 11-Nov-1994 #sequence_revision 03-Oct-1995 #text_change 13-Nov-1998 as a sequence_revision 03-Oct-1995 #text_change 13-Nov-1998 https://doi.org/10.137357; JH0558; PS0347; S44075	PERRONG UCATA3 CORPLET, M.S.; Schmitt, I.; Riess, O.; Walz, A. #authors Gorbett, M.S.; Schmitt, I.; Riess, O.; Walz, A. #gournal Biochem. Biophys. Res. Commun. (1994) 205:612-617 #title Characterization of the gene for human neutrophil-activating peptide 78 (ENA-78). #access.references MulD:95091791	##molecule_type DNA ##residues 1-114 ##label COR  A55010 A55010 A55010 A5010 Claning and characterization of the human neutrophil-activating peptide (ENA-78) gene. ##residues ##residues ##residues	##CIOSS-IELECTORS TO TO TO THE FEATURES TO TO THE FEATURE TO TO THE FEATURE TO THE TO THE FEATURE TO THE TO T	##molecule_type_mRNA ##residues_1-114 ##label RES #residuess_references EMBL:X78686; NID:9471242; PID:9471243 ##cross_references EMBL:X78686; NID:9471242; PID:9471243 NCE THOSES THOSE R.M. Car, B.; Baggiolini, M.; Kunkel, thors S.L.; Strieter, R.M. S.L.; Strieter, R.M. S.L.; Strieter, R.M. S.L.; Strieter, R.M. Tallon, Tallon
RESULT 1 ENTRY TITLE ALTERNATE_NAMES ORGANISM DATE	REFERENCE #authors #journal #title #cross-refer/ #accession	##molecule ##residues ##rresidues ##rross-rei #authors #journal #title #accession ##molecule	REFERENCE #authors #authors #journal #title #cross-referencession #status	##molecule ##residues ##residues ##cross-re #authors #journal #title

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Proost, P.; De Wolf-Peeters, C.; Conings, R.; Opdenakker, G.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P.; Wuyts, A.; Conings, R.; Lenaerts, J.P.; Billiau,
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#product neutrophil-activating peptide ENA-78 #status
experimental #label MAT
#length 114 #molecular-weight 11972 #checksum 9263
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##residues 1-75 ##label PRO
##experimental_source MG-63 osteosarcoma cells
##note sequence extracted from NCBI backbone (NCBIP:137966)
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J. Imnunol. (1993) 150:1000-1010
Identification of a novel granulocyte chemotactic protein (GCP-2) from human Lumor cells. In vitro and in vitro comparison with natural forms of GRO, IP-10, and IL-8.
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##note sequence extracted from NCBI backbone (NCBIP:123121)
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                                   ##experimental_source pulmonary type II epithelial cell line A549 cession PS0347
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granulocyte chemotactic protein - human
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Pred. No. 1.45e-08;
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                                                                  ##molecule_type protein
##residues 37-70;93-114 ##label WAL2
                      43-114 ##label WAL1
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#introns 37/1; 81/3; 109/2
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Best Local Similarity 100.0%;
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A54188; A46519
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##molecule_type mRNA
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52 QVCLDPEAPFLK 63

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Smith, J.B.; Herschman, H.R.
J. Biol. Chem. (1995) 270:16756-16765
Glucocorticoid-attenuated response genes encode intercellular
mediators, including a new C-X-C chemokine.
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intercrine-alpha protein - pig
#formal_name Sus scrofa domestica #common_name domestic pig
30-Apr-1993 #sequence_revision 18-Nov-1994 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                      *Sequence extracted from NCBI backbone (NCBIP:137967)

*superfamily beta-thromboglobulin

*length 75 *molecular-weight 7931 #checksum 8842
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                                                                                                                                                                               A.; Opdenakker, G.; Van Damme, J.
Blochemistry (1993) 32:10170-10177
Human and bovine granulocyte chemotactic protein-2: compl
amino acid sequence and functional characterization as
                                      granulocyte chemotactic protein, GCP-2 - bovine
#formal_name Bos primigenius taurus #common_name cattle
13-Sep-1994 #sequence_revision 18-Nov-1994 #text_change
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#formal_name Mus musculus #common_name house mouse
08-Dec-1995 #sequence_revision 08-Dec-1995 #text_change
08-Sep-1997
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#length 132 #molecular-weight 14190 #checksum 2181
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2; Mismatches 1; Indels
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##cross_references GB:U27267; NID:9950158; PID:9950159
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Matches 9; Conservative
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                                                    Goodman, R.B.; Foster, D.C.; Mathewes, S.L.; Osborn, S.G.; Kuijper, J.L.; Forstrom, J.W.; Martin, T.R. Biochemistry (1992) 31:104083-10490 Molecular Cloning of porcine alveolar macrophage-derived neutrophil chemotactic factors I and II; identification of porcine IL-8 and another intercrine-alpha protein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Huang, S.; Paulauskis, J.D.; Godleski, J.J.; Kobzik, L.
Am. J. Pathol. (1992) 141:981-988
Expression of macrophage inflammatory protein-2 and KC mRNA
                                                                                                                                                                                                                                                                                 ##experimental_source alveolar macrophage
##note sequence extracted from NCBI backbone (NCBIN:117417,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          macrophage inflammatory protein-2 - rat (fragment)
#formal_name Rattus sp. #common_name rat
12-Aug-1996 #sequence_revision 12-Aug-1996 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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SUMMARY #length 117 #molecular-weight 12343 #checksum 9615
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Pred. No. 7.58e-02;
4; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                        Score 67; DB 2; Length 117;
Pred. No. 1.05e-02;
3; Mismatches 1; Indels
                                                                                                                                                                                                                             ##molecule_type mRNA; protein
##residues 1-117 ##label GOO
##cross-references GB:M99368; NID:g164325; PID:g164326
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macrophage inflammatory protein 2 - rat
chemoattractant P-1
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#length 53 #checksum 9622
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##molecule_type mRNA
##rocidues 1-53 ##label RES
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Llarity 63.6%;
Conservative
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Best Local Similarity 66.7%;
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Feng, L.; Xia, Y.; Yoshimura, T.; Wilson, C.B.
J. Clin. Invest. (1995) 95:1009-1017
Modulation of neutrophil influx in glomerulonephritis in the
rat with anti-macrophage inflammatory protein-2 (MIP-2)
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#formal_name Sus scrofa domestica #common_name domestic pig
06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
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                                                               Nakagawa, H.; Ikesue, A.; Hatakeyama, S.; Kato, H.; Gotoda,
                                                                                                                                                                                                                                                                                                                                           ##experimental_source kidney, NRK-49F fibroblasts
##note sequence extracted from NCBI backbone (NCBIP:129129)
FPICATION #superfamily beta-thromboglobulin

XY #length 100 #molecular-weight 10783 #checksum 709
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macrophage inflammatory protein-2 - rat
#formal_name Rattus sp. #common_name rat
26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change
16-Feb-1997
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Molecular cloning and characterisation of a neutrophil chemotactic protein from porcine platelets.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                    #journal Biochem. Pharmacol. (1993) 45:1425-1430
#title Production of an interleukin-8-like chemokine by cytokine-stimulated rat NRK-49F fibroblasts and its suppression by anti-inflammatory steroids.
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                  ##cross-references EMBL:X65647; NID:956665; PID:956666
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##residues 32-45 ##label NAK
1-100 ##label DRI
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Best Local Similarity 63.6%;
Matches 7; Conservative
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##residues 1-10
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| EICLDPEAPFL 11
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Characterization of human platelet basic protein, a precursor form of low-affinity platelet factor 4 and beta-thromboglobulin.
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beta-thromboglobulin precursor - human
connective-tissue activating peptide III; CTAP-III;
histamine-releasing factor; neutrophil-activating peptide
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#title Generation of the neutrophil-activating peptide NAP-2 from platelet basic protein or connective tissue-activating peptide III through monocyte proteases.
#cross-references MUID:90155110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       #authors Majumdar, S.; Gonder, D.; Koutsis, B.; Poncz, M.
#journal J. Biol. Chem. (1991) 266:5785-5789
#title Characterization of the human beta-thromboglobulin gene.
COMPARISON With the gene for platelet factor 4.
                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                             2; platelet basic protein
#formal_name Homo sapiens #common_name man
30.Apr-1979 #sequence_revision 31-Dec-1992 #text_change
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A61240; B61240; A03240; A30159; A33516; S46247
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Cloning of cDNA coding for connective tissue activating
peptide III from a human platelet-derived lambdagtII
expression library.
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CLASSIFICATION #superfamily beta-thromboglobulin
#length 119 #molecular-weight 12615 #checksum 9198
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Pred. No. 7.58e-02;
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                                                                          1-119 ##label POW
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#cross-references MUID:94229068
                               ##molecule_type mRNA
##residues
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                                                                                                                                                               Query Match
Best Local Similarity 81.8%;
Matches 9; Conservative
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There appears to be a second beta-thromboglobulin-like human gene.

There appears to be a second beta-thromboglobulin-like human gene.

Connective-tissue activating peptides (CTAP) are a group of proteins capable of activating connective tissue cells. CTAP-I,

'II, 'III and 'P2, and 'PMN are of lymphoid, tumor cell, human platelet, and polymorphonuchear leukocyte origin, respectively.

TCTAP-III, a monomer isolated from platelets, stimulates DNA synthesis, mitosis, glycolysis, intracellular cAMP accumulation, prostaglandin E2 secretion, and synthesis of hyaluronic acid and secretion of plasminogen activator by human synovial cells.

Protecolytic removal of the first four residues of CTAP-III produces the active peptide beta-thromboglobulin, which is released from platelets along with platelet factor 4 and platelet-derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bacza, M.L.; Reddigari, S.R.; Kornfeld, D.; Ramani, N.;
Smith, E.M.; Hossler, P.A.; Fischer, T.; Castor, C.W.;
Gorevic, P.C.; Raplan, A.P.
J. Clin. Invest. (1990) 85:1516-1521
Relationship of one form of human histamine-releasing factor
to connective tissue activating peptide-III.
                                                                                                                                                                                                                                                                                                                                                                                           #authors Begg, G.S.; Pepper, D.S.; Chesterman, C.N.; Morgan, F.J.
#journal Blochemistry (1978) 17:1739-1744
#title Complete covalent structure of human beta-thromboglobulin.
#cross-references MUID:78187279
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#Journal FEBS Lett. (1994) 347:300-303
#title Purification, crystallization and preliminary X-ray diffraction analysis of recombinant human neutrophil-activating peptide 2 (rhNaP-2).
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                                                   Castor, C.W.; Miller, J.W.; Walz, D.A.
Proc. Natl. Acad. Sci. U.S.A. (1983) 80:765-769
Structural and biological characteristics of connective
tissue activating peptide (CTAP-III), a major human
platelet-derived growth factor.
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##residues 44-62,'X',64-79 ##label BAE
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##residues 59-62,'X',64-79 ##label KA2
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54-67 ##label WAL
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hypothetical protein CT825 - Chlamydia trachomatis (serotype D, strain UW3/Cx)
#formal_name Chlamydia trachomatis
13-Sep-1998 #sequence_revision 13-Sep-1998 #text_change
21-Nov-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ##cross-references EMBL:D90908; GB:AB001339; NID:g1652725; PID:d1018396;
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DNA Res. (1996) 31.09-136
Sequence analysis of the genome of the unicellular cyanobacterium Synechocystis sp. PCC6803. II. Sequence determination of the entire genome and assignment of potential protein-coding regions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         the nucleotide sequence was submitted to the EMBL Data
Library, June 1996
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#domain propeptide #status predicted #label PRO\
#product connective-tissue activating peptide III
#status experimental #label CTAP\
#product bega-thromboglobulin #status experimental
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                                                                                                   *product neutrophil-activating peptide 2 *status
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                                                                                                                                                                                               Score 62; DB 1; Length 128;
Pred. No. 1.23e-01;
2; Mismatches 1; Indels
                                                                                                                     experimental #label NAP2\
#disulfide_bonds #status experimental
#length 128 #molecular-weight 13894 #chee
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Best Local Similarity 58.3%;
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Local Similarity 72.7%;
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Ryseck, R.P.; MacDonald-Bravo, H.; Mattei, M.G.; Bravo, R. Exp. Cell Res. (1989) 180:266-275
Cloning and sequence of a secretory protein induced by growth factors in mouse fibroblasts.
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Stephens, R.S.; Kalman, S.; Lammel, C.J.; Fan, J.; Marathe, R.; Aravind, L.; Mitchell, W.P.; Olinger, L.; Tatusov, R.L.; Zhao, Q.; Koonin, E.V.; Davis, R.W. Science (1998) 282:754-759
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gro-alpha precursor - mouse
gro-protein; growth regulated protein; melanoma
growth-stimulating activity factor; melanoma mitogenic
protein; secretory protein N51
                                                                    #title Genome sequence of an obligate intracellular pathogen of humans: Chlamydia trachomatis.
#cross-references MUID:99000809
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Pred. No. 3.19e-01;
2; Mismatches 1;
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Pred. No. 1.23e-01;
2; Mismatches 1;
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##residues 1-96 ##label RYS
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Matches 8; Conservative
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Best Local Similarity 70.0%;
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                                                                                                                                                                                                              ##molecule_type DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 412 CLSPEASYLK 421
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#authors Tekamp-Olson, P.; Gallegos, C.; Bauer, D.; McClain, J.; Sherry, B.; Fabre, M.; van Deventer, S.; Cerami, A.

#journal J. Exp. Med. (1990) 172:911-919
Cloning and characterization of cDNAs for murine macrophage inflammatory protein 2 and its human homologues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      #domain signal sequence #status predicted #label SIGN #product macrophage inflammatory protein 2 #status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ##INCLECTIVE__LYPE HINN:
##residues 1-100 ##label NAK
##Cross-references EMBL:D21095; NID:9517143; PID:d1005186; PID:9517144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nakagawa, H.; Ikesue, A.; Hatakeyama, S.; Kato, H.; Gotoda,
                                                                                                                          JH0200 #type complete
macrophage inflammatory protein 2 precursor - mouse
#formal_name Mus musculus #common_name house mouse
30.Sep-1991 #sequence_revision 30-Sep-1991 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wolpe, S.D.; Sherry, B.; Juers, D.; Davatelis, G.; Yurt,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   chemoattractants (CINC), rat GRO/CINC-2-alpha and CINC-2-beta, produced by granulation tissue in culture: purification, complete amino acid sequences and characterization.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   846198 #type complete
cytokine-induced neutrophil chemoattractant 2 - rat
#formal_name Rattus norvegicus #common_name Norway rat
20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            *experimental #label MAT *length 100 #molecular-weight 10621 #checksum 8720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R.W.; Cerami, A. Proc. Natl. Acad. Sci. U.S.A. (1989) 86:612-616 Identification and characterization of macrophage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 60; DB 2; Length 100;
Pred. No. 3.19e-01;
3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mr.; Fujioka, M.; Kato, H.
Blochem. J. (1994) 301:545-550
Identification of cytokine-induced neutrophil
                                                                                                                                                                                                                                                                                                                                                                                                                                     ##residues 1-100 ##label TEK
##cross-references GB:X53798; NID:953128; PID:953129
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#superfamily beta-thromboglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      inflammatory protein 2.
#cross-references MUID:89098980
#accession A32190
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Local Similarity 70.0%;
hes 7; Conservative
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  73 EACLDPEAPLV 83
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| EICLDPEAPFL 11
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##residues 1-10
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#journal Biochem. Pharmacol. (1993) 45:1425-1430

#title Production of an interleukin-8-1ike chemokine by cytokine-stimulated rat NRK-8-19 fibrobhasts and its suppression by anti-inflammatory steroids.
#saccession C48988
#saccession C48988
#status Preliminary
##status Preliminary
##status Preliminary
##status Preliminary
##status Breliminary
##note Saquence extracted from NCBI backbone (NCBIP:129130)
SUMMARY #length 100 #molecular-weight 10989 #checksum 956
Query Match
Best Local Similarity 63.6%; Pred. No. 3.19e-01;
Matches 7; Conservative 3; Mismatches 1; Indels 0; Gaps 0;
Db 77 EVCLNPQAPRL 87

Qy 1 EICLDPEAPFL 11
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Search completed: Fri Feb 4 17:15:32 2000

Job time : 21 secs.

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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Run on: Fri Feb 4 17:14:32 2000; MasPar time 3.48 Seconds 73.270 Million cell updates/sec

Tabular output not generated.

Title: >US-09-150-813-41
Description: (1-12) from US09150813.pep
Perfect Score: 92

Sequence: 1 EICLDPEAPFLK 12

Searched: 170751 seqs, 21266608 residues

PAM 150 Gap 15

Scoring table:

Post-processing: Minimum Match 0% Listing first 45 summaries

natahasa.

Database: a-geneseq35
l:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7
8:part8 9:part9 10:part10 11:part11 12:part12 13:part13
14:part14 15:part15 16:part16 17:part17 18:part18
19:part19 20:part20 21:part21 22:part22 23:part28
24:part24 25:part25 26:part26 27:part27 28:part28
29:part29 30:part30 31:part31 32:part32 33:part33
34:part34 35:part35 36:part36 37:part37 38:part38

Statistics: Mean 18.372; Variance 54.493; scale 0.337

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Pred. No	2.30e-03 2.30e-03 3.30e-03 3.37e-03 3.37e-03 3.37e-03 3.37e-03 3.37e-03 8.00e+00 8.00e+00 8.00e+00 8.00e+00 8.00e+00	
Pr	(1(10)0)0)(1)	
Description	ENA-78. Inflammatory peptide Human GCP-2. Human nchemokine alpha Human granulocyte che Cattle GCP-2. Mouse CKDER201.1 chem Human macrophage deri Heparanase C-terminal Neutrophil activating Synthetic NAP-2. NAP-2. NAP-2. Neutrophil-activating Synthetic NAP-2. Neutrophil-activating Synthetic NAP-2. Neutrophil-activating Synthetic NAP-2. Neutrophil-activating Synthetic NAP-2.	sedneuce eucoged by s
£ £	R34198 R70796 R70796 W462843 W46286 W462864 W65844 W65896 W20061 R70805 R70805 R70805 R36775 R86011 R86011 R86011	P50526
DB	113 110 127 127 123 13 113 113	Ψ)
Match Length DB	75 78 78 111 113 75 69 69 70 70 70 75	85
Query	1000 1000 94.6 94.6 94.6 96.7 96.7 96.7 96.7 96.7 96.7 96.7 96	67.4
Score	00000000000000000000000000000000000000	62
Result No.	1 1 2 2 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	16

	8.00e+00			•		8.00e+00		o	1.34e+01	1.34e+01	.34	◡	.34	マ	•	. 34	.34	. 34	. 73	. 73	5	86	. 86	.68e+	.72	. 72	Ð	
CTAP-III analogues.	eparanase	iti	Platelet basic protei	Leukocyte derived gro	rived	of plat	Leukocyte derived gro	1)/LamB	chemot	Neutrophil chemotacti	Mouse mature KC polyp	Murine chemokine KC.	Mouse KC chemokine.	Murine chemokine KC.	crophage in	hil chemot	ophage i	e deriv	ownii f	uber	Cytokine and neutroph	cero	S. cerevisiae L9470.2	Rat type II collagen.	Ф	ophil activa	Ø	Amino acid sequence o
299	R70786	555	7078	R13520	R13521	R05767	R13519	R07984	R90929	R90930	W81497	W17669	R66697	W18023	R20528	R90928	R20588	-	R71580	27	10	219	438	948	862	029	R71583	088
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17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	3.5	36	37	38	36	40	41	42	4.3	44	45

# ALIGNMENTS

recombinant protein of use as an antiinflammatory. Sequence 75 AA;

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0
                                       Gaps
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WPI: 94-200200/24.
WPI: 94-200200/24.
Pure mammalian granulocyte chemotactic protein-2 - which stimulates granulocytes to secrete protease, used to develop prods. for treating inflammatory conditions
Disclosure; Page 29; 54pp; English.

Human GCP-2 was isolated from human MG-63 osteosarcoma (ATCC CRL 1427) cells, and cattle GCP-2 (R55844) from MDBK (ATCC CRL 6071) GCP-2 were also isolated and sequenced (R55845, TS5849).

Conserved region within mammalian GCP-2 is shown in sequence R55848.

Expression of DNA encoding GCP-2 in a host cell will provide
                                                                                                                                                                                  29-AUG-1995 (first entry)
Inflammatory peptide ENA-78.
Inflammatory Peptide; ENA-78; heparanase; heparin; heparan sulfate; arthritis; restenosis; cancer; wound healing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                     Screening for cods. with anti-heparanase activity - by detecting inhibition of heparin or heparan sulphate degradation, potentially useful for treating arthritis, restenosis, cancer. Claim 12; Page 43; 60pp; English.

Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human vector, and expression in Sf9 cells in the presence of reduced Sequence 78 AA;
                                       ;
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                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 92; DB 13; Length 78;
Pred. No. 2.30e-03;
0; Mismatches 0; Indels
        Length 72;
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   Score 92; DB 7; Le
Pred. No. 2.30e-03;
                                  0; Mismatches
                                                                                                                                       .T 2
R70796 standard; Protein; 78 AA.
R70796;
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R55843 standard; protein; 75 AA.
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26-NOV-1993.
27-NOV-1992: US-982539.
(UKLE-) UNIV LEUVEN REGA INST.
                                                                                                                                                                                                                                                                                           26-JUL-1994; U08207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
(UPJO ) UPJOHN CO.
HOOGWERT AJ, Ledbetter SR;
WPI: 95-082239/11.
Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 12; Conservative
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Best Local Similarity 100.0%;
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                                                            47 eicldpeapflk 58
                                                                                          1 EICLDPEAPFLK 12
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                                                                                                                                                                                                                                                   Homo sapiens.
WO9504158-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
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                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                  Li H, Ni J, Su JY;
WPI: 97-48032244.
N-PSDB; T91990.
Polynucleotide(s) encoding human chemokine alpha-3 - used to treat tumours, chronic infections, auto:lmmune diseases, parasitic infections, psoriasis, asthma etc.
Claim 13; Fig 1; 69pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence is human chemokine alpha-3 (CK alpha-3), which can be used to treat tumours, chronic infections, leukaemia, T-cell mediated autoimmune diseases, parasitic infections,
                                                                                                                                                                                                       Human chemokine alpha 3. Ck alpha-3; treatment; tumour; chemokine alpha-3; Ck alpha-3; treatment; tumour; chronic infection; leukaemia; T-cell mediated autoimmune disease; parasitic infection; psoriasis; asthma; allergy; haematopoiesis; growth factor; angiogenesis; wound healing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human granulocyte chemotactic protein 2 variant. NGCP; leukaemia; chemokine; granulocyte chemotactic protein 2 variant; NGCP; leukaemia; chemokine; alpha-intercrine; chemo-attraction; immune deficiency;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human granulocyte chemotactic protein 2 - useful for diagnosis and treatment of e.g. leukaemia claim 1; Fig IA-B; 59pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               psoriasis, asthma and allergy. It can also be used to regulate haematopoiesis, stimulate growth factor activity, inhibit anglogenesis and promote wound healing.
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   Score 87; DB 10; Length 75; Pred. No. 9.37e-03;
                                   0; Indels
                                 2; Mismatches
                                                                                                                                                         W36449 standard; Protein; 113 AA.
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                                                                                                                                                                                                                                                                                                                                                                      (HUMA-) HUMAN GENOME SCI INC.
94.6%;
ilarity 83.3%;
Conservative
                                                                                                                                                                                        08-APR-1998 (first entry)
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Conservative
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                                                                                                                                                                                                                                                                                                                   25-SEP-1997,
18-MAR-1996; U03686.
18-MAR-1996; WO-U03686.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cancer; immune response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-SEP-1997; U16034.
12-SEP-1996; US-713288.
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                                                            52 qvcldpeapflk 63
                                                                                           1 EICLDPEAPFLK 12
             Local Similarity
les 10; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
es 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  113 AA;
                                                                                                                                                                                                                                                                                     Homo sapiens.
WO9735027-A1.
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WO9811227-A1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-MAR-1998
Query Match
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                           Matches
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Vicari A, Zlotnik A;
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                                                                                                                                                                                                                                                                                                                                                          Matches
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                                                                                                                                                                                                                                                                                                                                                      Pure mammalian granulocyte chemotactic protein-2 - which pure mammalian granulocytes to secrete protease, used to develop prods. Fureting inflammatory conditions Disclosure; Page 29; 54pp; English.

Disclosure; Page 29; 54pp; English.

Human GCP-2 (R5843) was isolated from human MG-63 osteosarcoma (ATCC CRL 1427) cells, and cattle GCP-2 from MDBK ATCC CRL 6071) cells. Naturally-occurring N·terminally truncated variants of human GCP-2 were also isolated and sequenced (R55845.47, R55849). A conserved region within mammalian GCP-2 is shown in sequence R55848. Expression of DNA encoding GCP-2 in a host cell will provide recombinant protein of use as an antiinflammatory.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
 family of chemokines, has similarity to other alpha-intercrines involved in the chemo-attraction and activation of leukocytes. The nucleic acid sequence encoding NGCP and the protein can be used in the diagnosis and treatment of diseases such as leukaemia and other cancer, immune deficiencies or excessive immune responses. Sequence 114 AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            abnormal cell proliferation; regeneration; degeneration; atrophy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mouse CKDLR201.1 chemokine protein.
Mouse; CKDLR201.1; chemokine; G-protein coupled receptor; GPCR;
7 transmembrane receptor; inflammation; asthma; antiviral;
                                                                                                       ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 74; DB 10; Length /ɔ;
Pred. No. 3.35e-01;
"...ma+rhes 0; Indels
                                                                                   Score 87; DB 31; Length 114;
                                                                                           Pred. No. 9.37e-03;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Capone M, Gorman DM, Hedrick JA, Huffine CF, Rossi DL,
                                                                                                                                                                                                                                             granulocyte chemotactic protein-2; protease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /label= CKDLR201.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W69596 standard; Protein; 160 AA.
                                                                                                                                                                                           T 6
R55844 standard; protein; 75 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /label= signal
                                                                                                                                                                                                                                                                                                      26-NOV-1993; E03330.
27-NOV-1992; US-982539.
(UYLE-) UNIV LEUVEN REGA INST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               80.4%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-OCT-1998 (first entry)
                                                                                   Query Match 94.6%;
Best Local Similarity 83.3%;
Matches 10; Conservative
                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-JAN-1997; US-786624.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          .160
                                                                                                                                                                                                                                                                                                                                        Proost P, Van Damme J;
WPI; 94-200200/24.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (SCHE ) SCHERING CORP
                                                                                                                                                                                                                                                           antiinflammatory; MDBK
                                                                                                                                 89 qvcldpeapflk 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            52 evcldpeaplik 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 EICLDPEAPFLK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-JAN-1998; U00218.
                                                                                                                                               Local Similarity
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                                                                                                                                                                                                                                     Cattle GCP-2.
                                                                                                                                                                                                                         09-NOV-1994
                                                                                                                                                                                                                                                                                            09-JUN-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W69596;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus sp.
                                                                                                                                                                                                              R55844;
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Comprision and as antivital agences

Claim 1; Page 60: 7Pp; English.

The present sequence represents mouse CKDLR201.1 chemokine protein

which comprises a plurality of epitopes. Host cells containing vectors

Comprising a nucleotide sequence encoding the protein are used to

produce recombinant protein. Treatment of a cell, particularly neuron,

macrophage or lymphocyte, carrying a G-protein coupled receptor (GPCR)

containing to sused to control physiological development, e.g.

control agencial is used to control physiological development, e.g.

alteration of calcium ion influx, a chemoattractant response, morphology,

control physiological development, e.g.

control physiological developments on the protein of sequences the KDLR201.1 protein, or GPCRs, are useful as primers or

conceptor activation and isolating related sequences and for

conceptor activation and isolating related sequences and for

expressing antigenic peptides. Antibodies (Ab) directed against the

conceptor activation and sevelopmental abnormalities); in screening for

probes, e.g. for developmental abnormalities); in screening for

containing drugs; to inhibit chemokine/receptor activation; (when coupled

containing antibodies. CKDLR201.1 protein and GPCRs and compounds

which bind them can be used to treat inflammation, e.g. asthma: as

antivital agents, and to treat abnormal cell proliferation, regeneration

containing action and atrophy. Therapeutic agents are administered orally, by

Sequence 160 AA;
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                                                               Pure or recombinant chemokine CKDLR201.1 - useful, e.g. for treating inflammation and as antiviral agents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0; Gaps
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Human macrophage derived chemokine analogue.
MDC, macrophage derived chemokine; C-C; Cys-Cys; Crohn's disease;
rheumatoid arthritis; chemotaxis; fibroblast proliferation;
wound healing; anglogenesis; inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI: 97-052324/05.
WPI: 97-052324/06.
Macrophage derived chemokine (MDC) and analogues - used in the treatment of inflammatory diseases, MDC antibodies used to treat Crohn's disease, rheumatodia arthritis, etc.
Claim 25; Page 84: 106pp: English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 160;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 67; DB 34; I
Pred. No. 2.17e+00;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 72.8%;
Best Local Similarity 72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8; Conservative
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07-UNN-1996; U10114.
07-UNN-1995; US-479620.
16-NOV-1995; US-558658.
(ICOS-) ICOS CORP.
Godiska R, Gray PW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       65 icldpdapwvk 75
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2 ICLDPEAPFLK 12
WPI; 98-414108/35.
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                                                 N-PSDB; V40371
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Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. In peptide synthesis, a C-terminal peptide (R70805, encoded by cDNA sequence Q85374) based on sequences for CTAP-III, platelet basic (R70809) based on CTAP-III and platelet basic protein were
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       inhibition of heparin or heparan sulphate degradation, potentially useful for treating arthritis, restenosis, cancer. Claim 5; page 36; 60pp; English. Purified heparanses, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into pVL1392 baculovirus
                                       ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Neutrophil activating peptide-2.
Neutrophil activating peptide-2; heparanase; heparin; heparan sulfate; arthritis; restenosis; cancer; wound healing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
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                                                                                                                                                                            29-AUG-1995 (first entry)
Heparanase C-terminal peptide.
Heparanase; heparin; heparan sulfate; arthritis; restenosis; cancer; wound healing.
    Score 64; DB 23; Length 69; Pred. No. 4.77e+00; 1; Mismatches 3; Indels
                                    3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 62; DB 13; Length 32;
Pred. No. 8.00e+00;
2; Mismatches 1; Indels
                                                                                                                                   T 9
R70805 standard; Protein; 32 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JT 10
R70789 standard; Protein; 69 AA.
                                                                                                                                                                                                                                                                                                                                               Ledbetter SR;
Query Match
Best Local Similarity 66.7%;
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Best Local Similarity 72.7%;
Matches 8; Conservative
                              8; Conservative
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WPI; 95-082239/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-AUG-1995 (first entry)
                                                                                                                                                                                                                                                                                 26-JUL-1994; U08207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-JUL-1994; UO8207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
                                                          50 eicadprvpylk 61
                                                                                      1 EICLDPEAPFLK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16 icldpdaprik 26
                                                                                                                                                                                                                                                                                                                                          Hoogwerf AJ, Ledbe
WPI; 95-082239/11.
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                                                                                                                                                                                                                                                                                                                                (UPJO ) UPJOHN CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       32 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UPJO ) UPJOHN CO.
                                                                                                                                                                                                                                                                                                                                                                             085374.
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                                                                                                                                                                                                                                                        WO9504158-A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                  R70805;
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                              Matches
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Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Stimulating bone growth in mammals with neutrophil activating peptide(s) - partic. for diagnosis and treatment of osteoporosis Claim 1; Page 23; 45pp; English.

The sequences given in R86011-12 represent NAP-2V and NAP-2 which are a variant and the wild type form of neutrophil-activating peptide. These peptides were used in the method of the invention for increasing bone growth. NAP-2V is a cleavage product of the blatelet alpha-granule component platelet basic protein (PBP). It is related to NAP-2 in that NAP-2V has an additional 5 amino acids at its N-terminal. The N-terminal of NAP-2V resembles the N-terminus of human bone stimulating factor. These peptides are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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vector, and expression in Sf9 cells in the presence of reduced glutathione and dithiothreitol.
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Disclosure; Page 17; 24pp; English.
This sequence represents the amino acid sequence of neutrophil-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                             Score 62; DB 13; Leny...
Pred. No. 8.00e+00;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  useful in the diagnosis and treatment of osteoporosis. Sequence 70 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                          R86012 standard; peptide; 70 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JT 12
R36775 standard; peptide; 70 AA.
                                                                                                                              67.48;
                                                                                                                                                       Local Similarity 72.78;
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15-NOV-1991; US-792990.
(UYPE-) UNIV PENNSYLVANIA.
GEWITTE AM, PORCZ M;
WPI; 93-182235/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match
Best Local Similarity 72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    31-MAY-1996 (first entry)
                                                                                                                                                                                           8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-SEP-1993 (first entry)
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11-APR-1995; CA0205.
18-APR-1994; US-229009.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (OSTE-) OSTEOPHARM LID.
                                                                                                                                                                                                                                               45 icldpdaprik 55
                                                                                                                                                                                                                                                                                                            2 ICLDPEAPFLK 12
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                                                          69 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 95-373633/48.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic NAP-2.
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WO9528172-A1.
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                                                                Sequence
                                                                                                                              Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           wer; y/-winding peptide-2 variants which increase or promote mammalian bone growth - useful for prevention or treatment of bone mammalian bone growth - useful for prevention or treatment of bone reduction related diseases, especially osteoporosis

7 Initial Page 21, 43pp; English.

7 This polypeptide comprises a variant, termed NAP-2V, of neutrophilith polypeptide comprises a variant, termed NAP-2V, of neutrophilith polypeptide (NAP-2). Novel claimed polypeptides (see also crivating peptide (NAP-2). Novel claimed polypeptides (see also with (a) from 6-12 amino acid (AA) residues deleted from the vith (a) from 6-12 amino acid (AA) residues deleted from the creminus, (b) 7-49 AA deleted from the C-terminus, or (c) both (a) and contain no cysteine residues or at least 2 cysteine residues, preferably at positions 10 and 12. Also claimed are a chimneric bone stimulating factor comprising such polypeptides; an antibody which binds to the polypeptides; DNA creaments useful for recombinant production of the polypeptides and vectors comprising the DNA. The polypeptides are useful in the prevention of and increasing bone growth in mammals, especially for the treatment of osteoporosis (claimed).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAP-2V; NAP-2; variant; neutrophil-activating peptide; bone growth; cleavage product; human; bone stimulating factor; osteoporosis; platelet alpha-granule component platelet basic protein; PBP. Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
activating peptide-2 (NAP-2). NAP-2 is a potent neutrophil activating agent produced by the cathepsin D-mediated cleavage of the eleven N-terminal amino acids of beta-thromboglobulin. It may also be generated by the cleavage of two inactive precursors, connective-tissue-activating peptide III (CTAP-III) and platelet basic protein (RRP), which are stored in the alpha granules of blood platelets. NAP-2 or NAP-2 analogs, with homology of >80%, may be used to lower blood levels of circulating platelets and to reduce the clot forming abilities of these platelets.
                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31-DEC-1997 (first entry)
Neutrophil-activating peptide variant NAP-2V.
Neutrophil-activating peptide-2; NAP-2V; bone stimulating factor;
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                                                                                                                                                                                                                                       Score 62; DB 7; Le Pred. No. 8.00e+00; 2; Mismatches 1;
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W26467 standard; Protein; 75 AA.
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Best Local Similarity 72.7%;
Matches 8; Conservative
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Best Local Similarity 72.7%;
Matches 8; Conservative
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26-SEP-1996; CA0653.
26-SEP-1995; US-004314.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           osteoporosis; therapy
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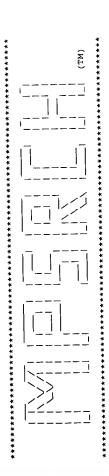
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Screening for cpds. with anti-heparanase activity - by detecting screening for cpds in heparin or heparan sulphate degradation, potentially useful for treating arthritis, restenosis, cancer. Claim 5: page 35: 60pp: English.

Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into pVL1392 baculovirus vector, and expression in Sf9 cells in the presence of reduced glutathione and dithiothreitol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                  Stimulating bone growth in mammals with neutrophil activating stimulating bone growth in mammals with neutrophil activating peptide(s) - partic. for diagnosis and treatment of osteoporosis claim 1; Page 23; 45pp; English.

The sequences given in R86011-12 represent NAP-2V and NAP-2 which are a variant and the wild type form of neutrophil-activating peptide. These peptides were used in the method of the invention for increasing bone growth. NAP-2V is a cleavage product of the platelet alpha-granule component platelet basic protein (PBP). It platelet alpha-granule component platelet basic protein (PBP) is related to NAP-2 in that NAP-2V has an additional 5 amino acids at its N-terminal. The N-terminal of NAP-2V resembles the N-terminus of human bone stimulating factor. These peptides are
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Beta-thromboglobulin, heparanase; heparin; heparan sulfate;
arthritis; restenosis; cancer; wound healing.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     useful in the diagnosis and treatment of osteoporosis Sequence 75 AA.
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Pred. No. 8.00e+00;
2; Mismatches 1;
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R70788 standard; Protein; 81 AA.
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95-082239/11.
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26-JUL-1994; U08207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
                                                                                       OSTE-) OSTEOPHARM LTD.
26-OCT-1995.
11-APR-1995; CA0205.
18-APR-1994; US-229009.
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protein - protein database search, using Smith-Waterman algorithm

Fri Feb 4 17:22:26 2000; MasPar time 5.28 Seconds 124.159 Million cell updates/sec Tabular output not generated. Run on:

>US-09-150-813-42 (1-12) from US09150813.pep 93 Description: Perfect Score:

1 OVCADPSEEWVQ 12 Sequence:

PAM 150 Gap 15 Scoring table:

Searched:

179066 seqs, 54579741 residues

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

sptrembl9
1:sp_archea 2:sp_bacteria 3:sp_fungi 4:sp_human
1:sp_archebrate 6:sp_mammal 7:sp_mhc 8:sp_organelle
5:sp_hade 10:sp_plant 11:sp_rodent 12:sp_unclassified
13:sp_vertebrate 14:sp_virus

Mean 25.308; Variance 35.370; scale 0.716 Statistics: pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Pred. No.	9.64e-08	1.41e-04	2.76e-03	4.48e-03	3.03e-02	3.03e-02	3.03e-02	4.85e-02	4.85e-02	4.85e-02	4.85e-02	7.73e-02	1.23e-01	1.94e - 01	3.06e-01	4.80e-01	7.50e-01	1.17e+00	1.1/e+00	T.1/e+00
Description		IL-10-INDUCIBLE CHEMOK	ORF K6.	MPIF-2.	CXC CHEMOKINE PRECURSO	BETA CHEMOKINE EXODUS-	SMALL INDUCIBLE CYTOKI		BETA CHEMOKINE EXODUS-	NEUROTACTIN.		CC CHEMOKINE ST38 PREC	RANTES PRECURSOR.	CX3C CHEMOKINE PRECURS	ECO Q PROTEIN (FRAGMEN	CC CHEMOKINE EXODUS.	CC CHEMOKINE ABCD-1.		LYMPHOTACTIN PRECURSOR	RADIAL SPOKEHEAD.
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° Query Match Length DB	80	120	95	119	109	133	133	94	134	395	395	62	6	397	203	96	92	95	97	552
Query Match 1	100.0	84.9	78.5	77.4	73.1	73.1	73.1	72.0	72.0	72.0	72.0	71.0	0		67.79	66.7	65.6	64.5	64.5	64.5
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RY;	L. CRSON	HOMO SAPIENS (HUMAN). EUKARYOTA; METAZOA; CHORDATA CATARRHINI; HOMINIDAE; HOMO.		10	ALL.	1 16 >80	80 8857	100.0%; arity 100.0%; Conservative			IARY	115467; 01-7AN-1998 (TREMBLREL. 05 01-JAN-1998 (TREMBLREL. 05 01-NOV-1998 (TREMBLREL. 08 1L-10-INDUCIBLE CHEMOKINE. ILLINCK OR SCYA16.
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T 1	014745; 01-NOV- 01-NOV- 01-JAN-	HOMO SEUKAR	LJ SEQUEI FISSUI SHIZI	TYAK JBMI	ROSI	SIGNAL. NON_TER SIGNAL CHAIN	NON_TER SEQUENCE	y Ma Loc hes	65	Н	T 015467	015467; 01-JAN- 01-JAN- 01-NOV- IL-10-I
RESULT ID Q1	22223	H B 5:	SET	A PV E	3 6 6			Query Match Best Local Matches			SUL	
RES	DI DI	8888	RA RA RA	RA RL	DR	KW FT FT	FT SQ	<b>.</b>	QQ	QΥ	ID ID	AC DT DT OB GN

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RESULT
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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                                                                                                                                                                                                                 SECUENCE FROM N.A.
MEDLINE, 983080056.
MEDLINE, S. ZHANG S.,
BROXMEYER H.E., ANTOL K., FRASER M.J. JR.,
HANGOC G., KWON B.S.,
"Isolation and characterization of LMC, a novel lymphocyte and
monocyte chemoattractant human CC chemokine, with myelosuppressive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y.; "Molecular minicry of human cytokine and cytokine response pathway
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA PARRY J.P., PERUZI D., EDELMAN I.S., CHANG Y., MOORE P.S., "Nucleotide sequence of the Kaposi sarcoma-associated herpesvirus
                                                                                                          SHOUDAI K., HIESHIMA K., FUKUDA S., IIO M., MIURA R., IMAI T., YOSHIE O., NOMIYAMA H.;
BIOCHIM. BIOPHYS. ACTA 0:0-0(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                         .;
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                                                                                                                                                                        "Structure of a region of 181 kb containing five CC chemokine
                                                                                                                                                                                                                                                                                                                                                                                          Juery Match
84.9%; Score 79; DB 4; Length 120;
dest Local Similarity 50.0%; Pred. No. 1.41e-04;
datches 6; Conservative 6; Mismatches 0; Indels
                                                      HEDRICK J.A., HELMS A., GORMAN D., ZLOINIK A.;
SUBMITTED (NOV-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                              SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VIRUSES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
GAMMAHERPESVIRINAE; RHADINOVIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                  activity.";
BIOCHEM. BIOPHYS. RES. COMMUN. 247:217-222(1998).
EMBL; HOPT46; G281781;
EMBL; AB007454; D1024963;
EMBL; AR088219; G3719365;
EMBL; AF0855467; G3395776;
PFAM; PF00048; i18; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
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                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE 120 AA; 13600 MW; A079DF66 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           95 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KAPOSI'S SARCOMA-ASSOCIATED HERPESVIRUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             098158; 012569;
01-FEB-1997 (TREMBLREL. 02, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQU
01-NOV-1998 (TREMBLREL. 08, LAST ANN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                     CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCIENCE 274:1739-1744(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
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1 QVCADPSEEWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                      74 EVCTNPNDDWVQ 85
                                          SEQUENCE FROM N.A.
                                                                                    SEQUENCE FROM N.A.
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                                                                                                                                                                NOMIYAMA H.;
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BUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                               SEQUENCE FROM N.A.
RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
RUSSO J.J., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                           SEQUENCE FROM N.A.
NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFO D.,
HENDRICKSON S., GUO H.G., HAYWARD G.S., REITZ M.S.;
SUBMITTED (NOV-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
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PATEL V.P., KREIDER B.L., LI Y., LI H., LEUNG K., SALCEDO T.,
NARDELLI B., PIPPALLA V., GENTZ S., THOTAKURA R., PARMELEE D.,
GENTZ R., GARCTTA G.,
J. EXP. MED. 0:0-0(0).
EMBL; U89768; G1916252; -.
PPAM; PF00048; i18; 1.
SEQUENCE 119 AA; 13119 MW; CDF526F0 CRC32;
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PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S., SUBMITTED (OCT-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                        MEDLINE; 97296220.
NEIPEL F., ALBRECHT J.C., FLECKENSTEIN B.;
"Cell-homologous genes in the Kaposi's sarcoma-associated rhadinovirus human herpesvirus 8: determinants of its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 73; DB 14; Length 95; Pred. No. 2.76e-03; 3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   77.4%; Score 72; DB 4; Length 119; 66.7%; Pred. No. 4.48e-03; vative 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUN R., LIN S.-F., MILLER G.;
SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; U75698; G71182665; -
EMBL; U75895; G1658273; -
EMBL; U93872; G2246546; -
EMBL; U70366; G3551763; -
EMBL; W100048; LIB; 1
HYPOTHETICAL PROTEIN.
SEQUENCE 95 AA: 10485 MW; 5283348D CRC32;
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LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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                                                                                                                                                                                                                                                                                                                                                                              pathogenicity?";
J. VIROL. 71:4187-4192(1997).
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04,
08,
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Local Similarity 66.7%;
es 8; Conservative
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Conservative
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000175
000175;
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043927
043927;
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PPFAM; PF00048; 118; 1.
SEQUENCE 133 AA; 14600 MW; B34A5E22 CRC32;
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098157
098157;
                                SEQUENCE
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009002
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EUKRRYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                      HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                               LEGIER D. F., LOFISCHER M., STUBER ROOS R., CLARK-LEWIS I., BAGGIOLINI M., MOSER B.;

B cell-attracting chemokine 1, a human CXC chemokine expressed in imphoid tissues, selectively attracts B lymphocytes via
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "A.B.-cell-homing chemokine made in lymphoid follicles activates Burkitt's lymphoma receptor-1."; NATURE 391:799-803(1998).
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Pred. No. 3.03e-02;
1; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GUNN M.D., NGO V.N., ANSEL K.M., EKLAND E.H., CYSTER J.G., WILLIAMS L.T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAPOLITANO M., SPINETTI G., GAETANO C., CAPOGROSSI C.M.; SUBMITTED (07-1997) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AJ002211; E1249325; ... EMBL; AF044197; G2911376; ... EMBL. AF029894; G3169814; ...
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EMBL; U88322; G3169697; --
MGD; MGI:1097677; SCXA21.
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(TREMBLREL. 08, LAST ANNOTATION UPDATE)
                      01-JUN-1998 (TREMBLREL. 06, CREATED)
01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)

        SIGNAL
        1
        22
        POTENTIAL.

        CHAIN
        23
        109
        POTENTIAL.

        SEQUENCE
        109
        Aa;
        12664
        MW;
        BE5A46BC
        CRC32;

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01-AUG-1998 (TREMBLREL. 07, LAST SEQU
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7; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BETA CHEMOKINE EXODUS-2.
                                                                                                                        CXC CHEMOKINE PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-TOTAL FETUS;
HROMAS R.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-TOTAL FETUS;
MEDLINE; 97444139.
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009006
009006;
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EUKARYOTA: METAZOA: CHORDATA; VERTEBRATA: MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
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NICHOLAS J., RUVOLO V.R., BURNS W.H., SANDFORD G., WAN X., CIUFO D., HICHOLAS J., RUVOLO V.R., HAVWARD G.S., REITZ M.S.; HENDRICKSON S., GUO H.G., HAVWARD G.S., REITZ M.S.; SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE=THYMUS;
TANABE S., LUO Y., QUACKENBUSH E.J., BERWAN M.A.,
TANABE S., LU Z., LUO Y., GUACKENBUSH E.J., JACOBS K.A., DORF M.E.;
COLLINS-RACIE L.A., MI S., REILLY C., LO D., JACOBS K.A., DORF M.E.;
SUBMITTED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                    Gaps
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Pred. No. 3.03e-02;
3; Mismatches 2; Indels
Score 68; DB 11; Length 133; Pred. No. 3.03e-02; 3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HEDRICK A.; ELLINIK A.; HEDRICK A.; HEDRICK A.; SUBMITTED (MAX-1997) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; AF006637; G2209189; -. EMBL; AF001690; G2624927; -. MGD; MGI:1097677; SCYA21. SPRAM; PRO048; 118; 1. SEQUENCE 133 AA; 14558 MW; C0532523 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AND KAPOSI'S SARCOMA-ASSOCIATED HERPESYTRUS.
VIRUGES; DSDNA VIRUSES, NO RNA STAGE; HERPESVIRIDAE;
GAMMAHERPESVIRINAE; RHADINOVIRUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                     009002;
01-JUL-1997 (TREMBLREL. 04, CREATED)
01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
SMALL INDUCIBLE CYTOKINE A21 (TCA4).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KAPOSI'S SARCOMA-ASSOCIATED HERPES-LIKE VIRUS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3; Mismatches
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                                                       3; Mismatches
                                                                                                                                                                                                                                                      133 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               containing six conserved cysteines."; J. IMMUNDL. 159:1589-1593(1997).
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08,
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Best Local Similarity 58.3%;
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       y match
Local Similarity 58.3%;
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                                                               7; Conservative
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01-FEB-1997 (TREMBLREL.
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1 OVCADPSEEWVQ 12
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                                                                                                               73 ELCANPEEGWVQ 84
                                                                                                                                                              1 QVCADPSEEWVQ 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HOMO SAPIENS (HUMAN).
EUKARYOTĀ; METAZOĀ; CHORDATĀ; VERTEBRATĀ; MAMMALIĀ; EUTHERIĀ; PRIMATĒS;
CATARRHINI; HOMINIDĀE; HOMO.
                                                                                                                                                                                                   SEQUENCE FROM N.A.
RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D.,
PARRY J.P., PERUZZI D., EDELMAN I.S., CHANG Y., MOORE P.S.;
SUBMITTED (OCT-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                      RUSSO J.J., BOHENZKY R.A., CHIEN M.C., CHEN J., YAN M., MADDALENA D., PARRY J.P., PERUZI D., EDELMAN I.S., CHANG Y., MOORE P.S.; SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
            MOORE P.S., BASHOFF C., WEISS R.A., CHANG Y., "Molecular mimicry of human cytokine and cytokine response pathway
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MEDLINE; 97400322.
HEDRICK J.A., ZLOTNIK A.;
Identification and characterization of a novel beta chemokine containing six conserved cysteines.";
J. IMMUNOL. 159:1589-1593(1997).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 67; DB 14; Length 94;
Pred. No. 4.85e-02;
1; Mismatches 2; Indels
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HROMAS R.A., GRAY P., KLEMSZ M., FIFE K., BROXMEYER H.;
SURMITIED (JUN-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUN R., LIN S.-F., MILLER G., SUBMITTED (SEP-1996) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; U67775; G1562496; EMBL; U75698; G1718264; -.
                                                                                                                                                                        PROC. NATL. ACAD. SCI. U.S.A. 93:14862-14867(1996).
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01-JUL-1997 (TREMBLREL. 04, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94 AA; 10486 MW; 91312200 CRC32;
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                                                       SCIENCE 274:1739-1744(1996).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL, U93872; G2246517; EMBL, U71365; G3551760; PFAM; PFO0048; 118; 1. HYPOTHETICAL PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  72.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 72.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    72 OVCADKSKDWV 82
                                                                                     SEQUENCE FROM N.A.
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   MEDLINE; 97094384
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                                                                                                       97121480
                                                                                                    MEDLINE;
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000585
000585;
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EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA: MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
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EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 97320499.
PAN Y., CLARE L., HONG Z., DOLICH S., DEEDS J., GONZALO J., VATH J., GOSSELIN M., MA J., DUSSAULT B., WOOLF B., ALPERIN A., CULPEPPER J., "Neurotactin, a membrane-anchored chemokine upregulated in brain inflammation.";
Inflammation.";
MAD: MRIS 387:611-617(1997).
EMBL: APO10586; G2317698; -.
PRAM: PF010586; G2317698; -.
PRAM: PF00048; i18; 1.
SEQUENCE 395 AA: 42098 MW; E3CD0612 CRC32;
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STRAIN=BALB/C; TISSUE-BRAIN;
ROSSI D., HARDIMAN G., COPELAND N., GILBERT D.J., JENKINS N.,
ZLOTNIK A., BAZAN J.F.;
                                                                                                                                                                                                                                                                                                                                                                                                 Length 134;
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                                                                                                                                                                                                                                                                                                                                                                                                                                              2; Indels
[3]
SEQUENCE FROM N.A.
HEDRICK J.A., ZLOTNIK A.;
SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
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LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                         Query Match 72.0%; Score 67; DB 4; La Best Local Similarity 66.7%; Pred. No. 4.85e-02; Matches 8; Conservative 2; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                395 AA.
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01-JAN-1998 (TREMBLREL. 05, LAST SEQ
01-NOV-1998 (TREMBLREL. 08, LAST ANNC
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035188
035188;
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035933
035933;
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MEDLINE; 96074534.
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P78423; 000672;
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Q67634
Q67634;
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EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES;
CATARRHINI; HOMINIDAE; HOMO.
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BUKRYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA;
SCIUROGNATHI; MURIDAE; MURINAE; MUS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "A novel rat CC chemokine, identified by targeted differential display, is upregulated in brain inflammation."; J. NEUROIMMUNOL. 0:0-0(1998).
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LESSLAUER W.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 66; DB 11; Length 97;
Pred. No. 7.73e-02;
2; Mismatches 1; Indels
                                                                                                     Length 395;
                                                                                           Score 67; DB 11; Length 399
Pred. No. 4.85e-02;
Virmatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUBMITTED (AUG-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JANG J.S., KIM B.E.;
SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (JUL-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
EMBL; AD005313; G3551819; -.
EMBL; AJ007862; E1312757; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-1998 (TREMBLREL. 06, CREATED)
01-JUN-1998 (TREMBLREL. 06, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
      SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS. EMBL; U92565; G2459677; -. PFAM; PF00048; 118; 1. SEQUENCE 395 AA; 42040 MW; 3997A113 CRC32;
                                                                                                                                                                                                                                                                                                                                                   01-NOV-1998 (TREMBLREL. 08, LAST SEGUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
CC CHEMOKINE ST38 PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CC CHEMOKINE ST38.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                053405BD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 91 AA.
                                                                                                                                                                                                                                                                                                     97 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                             CREATED)
                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIGNAL 1 27
CHAIN 28 97
SEQUENCE 97 AA; 10826 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       71.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity 70.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7; Conservative
                                                                                                           Ouery Match 72.0%;
Best Local Similarity 80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                8; Conservative
                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                           01-NOV-1998 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
01-NOV-1998 (TREMBLREL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SECUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      74 VCADPKQNWV 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 VCADPSEEWV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RANTES PRECURSOR.
                                                                                                                                                                                                                               3 CADPSEEWVO 12
                                                                                                                                                                                        74 CADPKEKWVQ 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VILLARES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     T 13
043646
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                                                                                                                                                                                                                                                                                       LT 12
089093
089093;
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                                                                                                                                                                                                                                                                                                                                                                                                                               LARC.
                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                         RESULT
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CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
ADAMS M.D., LOFTUS B.J., ZHOU L., CROSBY M., FUHRMANN J., MASON T.M.,
ADAMS M.D., LOFTUS B.J., KERLAVAGE A.R., VENTER J.C.;
BRANDON R., KIM U.J., KERLAVAGE A.R., VENTER J.C.;
"HOMO SAPIENS Chromosome 16 BAC clone CIT987SK-A-152E5.";
SUBMITTED (JUN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 97177111.
BAZAN J.F., BACON K.B., HARDIMAN G., WANG W., SOO K., ROSSI D. BAZAN J.F., LOTNIK A., SCHALL T.J.;
"A new class of membrane-bound chemokine with a CX3C motif.";
NATURE 385:640-644(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 64; DB 4; Length 397;
Pred. No. 1.94e-01;
1; Mismatches 1; Indels
                                                                                                                                                                             Score 65; DB 4; Length 91;
Pred. No. 1.23e-01;
2; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VIRUSES; DSDNA VIRUSES, NO RNA STACE; HERPESVIRIDAE;
ALPHAHERPESVIRINAE; VARICELLOVIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAY-1997 (TREMBLREL. 03, CREATED)
01-MAY-1997 (TREMBLREL. 03, LAST SEQUENCE UPDATE)
01-NOV-1998 (TREMBLREL. 08, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL 1 24 POTENTIAL.
CHAIN 25 397 CX3C CHEMOKINE.
SEQUENCE 397 AA; 42202 MW; C8093D7D CRC32;
                                                                                                                                        CF404FAD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                             397 AA
EMBL; AF043341; G2905632; -.
EMBL; AF088219; G3719366; -.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                               POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-NOV-1996 (TREMBLREL. 01, CREATED) 01-NOV-1996 (TREMBLREL. 01, LAST SEQU 01-NOV-1998 (TREMBLREL. 08, LAST ANN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL, U91835; G1899259; -.
EMBL; U84487; G1886523; -.
EMBL; AC004382; G3252821; -.
PFAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 68.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 77.8%;
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ECO Q PROTEIN (FRAGMENT).
GALLID HERPESVIRUS TYPE 1.
                                                                                                  1 23
24 91
91 AA; 9990 MW;
                                                                                                                                                                                          Match 69.9%;
Local Similarity 58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRELIMINARY;
                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CX3C CHEMOKINE PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                       71 QVCANPEKKWVR 82
                                                                                                                                                                                                                                                                                                                                     1 OVCADPSEEWVO 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               74 CADPKEQWV 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
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RA PENG O., ZENG M., BHUIYAN Z.A., UBUKATA E., TANAKA A., NONOYAMA M.,
RT "Isolation and characterization of Marek's disease virus (MDV) cDNAs
RT "apping to the BamHI-12, BamHI-02, and BamHI-L fragments of the MDV
RT infected with MDV";
RL VIROLOGY 213:590-59911995)
DR EMBL; U34966; G1185444;
DR PFAM; PFO0048; i18; i.
FT NON_TER
SO SEQUENCE 203 AA; 23132 MW; 887D04C3 CRC32;
QUETY MATCh
BEST LOCAL Similarity 63.6%; Pred. No. 3.06e-01;
MATCHSS 7; CONSERVATIVE 0; Mismatches 4; Indels 0; Gaps 0;
DD 145 VCVDPEAPWVQ 155
QY 2 VCADPSEEWVQ 12
Search completed: Fri Feb 4 17:23:23 2000
```

protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 17:22:02 2000; MasPar time 2.55 Seconds 132.908 Million cell updates/sec MPsrch_pp Run on:

Tabular output not generated.

>US-09-150-813-42 (1-12) from US09150813.pep 93 Description: Perfect Score:

1 QVCADPSEEWVQ 12 Sequence:

Scoring table:

77977 seqs, 28268293 residues PAM 150 Gap 15

Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

swiss-prot37 1:swissprot Database:

Mean 25.461; Variance 34.416; scale 0.740 Statistics: Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

												_					_	~	<u>~</u>	~	~	m	m	
Pred. No.	2.07e-08	2.07e-08	.35e-07	.63e-06	.33e-05	.06e-04	.06e-04	.06e-04	1.77e-04	.94e-04	.94e-04	.94e-04	.88e-04	8.08e-04	8.08e-04	8.08e-04	.08e-04	.33e-03	.33e-0	.33e-0	.19e-0	.,19e-0	.19e-0	
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Description	MACROPHAGE INFLAMMATOR	TONSILLAR LYMPHOCYTE L	MACROPHAGE INFLAMMATOR	MACROPHAGE INFLAMMATOR	MACROPHAGE INFLAMMATOR	MONOCYTE CHEMOTACTIC P	MONOCYTE CHEMOTACTIC P	MONOCYTE CHEMOTACTIC P	MACROPHAGE INFLAMMATOR	MACROPHAGE INFLAMMATOR	MONOCYTE CHEMOTACTIC P	MONOCYTE CHEMOTACTIC P	MACROPHAGE INFLAMMATOR	MACROPHAGE INFLAMMATOR	CHEMOKINE CC-1 PRECURS	MONOCYTE CHEMOTACTIC P	CHEMOKINE CC-3 PRECURS	MONOCYTE CHEMOTACTIC P	MONOCYTE CHEMOTACTIC P	MONOCYTE CHEMOTACTIC P	T-CELL SPECIFIC RANTES	T-CELL SPECIFIC RANTES	MACROPHAGE INFLAMMATOR	
Π	MI1A_HUMAN	MI10 HUMAN	MI1B_HUMAN	MILB RABIT	MI1A RAT	MCP1_CAVPO	MCP1 RAT	MCP1 MOUSE	MI1B RAT	MIIB CHICK	MCP4_HUMAN	MCP3_HUMAN	MIP4_HUMAN	MI1B_MOUSE	CCC1_HUMAN	MCP2_PIG	CCC3 HUMAN	MCP2_BOVIN	MCP1 HUMAN		SISD MOUSE	SISD RAT	MIIA MOUSE	,
DB	-	Н	Н	Н	-	Н	-	-	-	Н	г	н	٦	Н	Н	-	-	٦	_	١,	٠,	-	-	ı
Length	92	93	92	92	92	120	148	148	92	06	86	66	8	92	66	66	109	66	66	•		60	0.6	1
Query	100.0	100.0	92.5	89.2	83.0	82.8	82.8	82.8	81.7	80.6	80.6	80.6	79.6	78.5	78.5	78.5	78.5	77 4	77 4	77 4	76.3	7.07	76.3	)
Score	93	.6	80	3 6	7.8	7.7	7.7	77	76	7.5	7.5	7.5	74	73	7.3	7.3	73	7.2	7.2	7.5	7.5	7.1	7.1	1
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2.19e-03 3.59e-03 3.59e-03 3.59e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 5.86e-03 6.50e-02 5.86e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.66e-03 6.6	
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MCP1_PIG IIB_CANFA IIB_SHEEP IIB_PIG MCPB_BOVIN MCP2_HUMAN MCP2_HUMAN MCP2_ACAT EOTA_RAT EOTA_RAT EOTA_RAT EOTA_RAT EOTA_RAT INCPA_BOVIN MCP5_MOUSE IIB_BOVIN C10_MOUSE IIB_BOVIN SISD_FIG SISD_FIG SISD_FIG SISD_RAT EMT1_CHICK SISD_RAT EMT1_CHICK SISD_RAT ENTA_CHICK SISD_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO IIB_RATA_CAVPO	
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## ALIGNMENTS

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expression.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE;
                                                                                                                                                                                                                                                                                 SIGNAL
                                                                                                                                                                                                                                                                                                                                                                Matches
           SO THE TENT WAS BUSINESS.
                                                                                                                                                                                                                                                                                                                                                                                    В
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                                                                                                                                                                                                                                                                                                                                                   ö
 -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                             POTENTIAL.
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BLUM S., FORSDYKE R.E., FORSDYKE D.R.;
"Three human homologs of a murine gene encoding an inhibitor of stem
                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                              01-AUG-1990 (REL. 15, CREATED)
01-AUG-1990 (REL. 15, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
TONSILLAR LYMPHOCYTE LD78 BETA PROTEIN PRECURSOR (GOS19-2 PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IRVING S.G., ZIPFEL P.F., BALKE J., MCBRIDE O.W., MORTON C.C., BURD P.R., SIEBENLIST U., KELLY K.; "Two inflammatory mediator cytokine genes are closely linked and variably amplified on chromosome 17q."; "UCLEIC ACIDS RES. 18:3261-3270(1990).
                                                                                                                                                                                                                                                                                                                                                  .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
MEDLINE; 90287155.
NAKAO M., NOMIYAMA H., SHIMADA K.;
"Structures of human genes coding for cytokine LD78 and their
                                                                                                                                                                                                                                                                                                                        Score 93; DB 1; Length 92;
Pred. No. 2.07e-08;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                  CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                      C24DD919 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                93 AA.
                                                                                                                                                                                                                                                                                   BY SIMILARITY
                                                                                                                                                                                                                                                                                            SIMILARITY
                                                                                                                                                                                                                 PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                       EMBL; X04018; G34297; ALT_SEO.
EMBL; M33178; G182847; --
EMBL; D90144; G219906; --
PIR; A24198; A24198.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA CELL BIOL. 9:589-602(1990).
                                                                                                                                                                                                                                                                                                    92 AA; 10085 MW;
                                                                                                               EMBL; D00044; D1000469; -.
                                                                                                                                                                                                                                                                                                                          100.08;
                                                                                                                        M23452; G188559; -. X03754; G758089; -.
                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                              12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                             PFAM; PF00048; 118; 1.
                                                                                                                                                                                               PIR; A30574; A30574.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 90287702.
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                                                                                                                                                                                                                                                 CYTOKINE;
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                                                                                                                                                                                                                                                                                                  SEQUENCE
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                                                                                                                                  EMBL;
EMBL;
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MOL. CELL. BIOL. 10:3646-3658(1990).
-!- SIMILARITY: 464.1 AND 464.2 ARE VERY CLOSELY RELATED.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (T-CELL ACTIVATION PROTEIN 2) (ACT-2) (PAT 744) (H400) (SIS-GAMMA) (LYMPHOCYTE ACTIVATION GENE-1 PROTEIN) (LAG-1) (HC21) (SMALL INDUCIBLE CYTOKINE A4) (G-26 T LYMPHOCYTE-SECRETED PROTEIN).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LIPES M.A., NAPOLITANO M., JEANG K.-T., CHANG N.T., LEONARD W.J.; "Identification, cloning, and characterization of an immune activation gene."; PROC. NATL. ACAD. SCI. U.S.A. 85:9704-9708(1988).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HOMO SAPIENS (HUMAN).
EUKARXOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LD78 BETA / G0S19-2 / 464.2.
BY SIMILARITY.
BY SIMILARITY.
21EDDB04 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 93; DB 1; Length 93; Pred. No. 2.07e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MIIB_HUMAN STANDARD; PRT; 92 AA. P13236; P22617; Q13704; O1-JAN-1990 (REL. 13, CREATED) 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE) 01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                               EMBL; X52149; G296666; --
EMBL; M24110; G182849; --
EMBL; D90145; G219908; --
PIR; B30908; B30908.
PIR; B36412; B30412.
PIR; B36573; B36673.
PIR; S10157; S10157.
MIM; 601395; --
PROSTIF; PS00472; SMALL_CYTOKINES_CC; 1.
PFSM; PF3236; 1HUN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10161 MW;
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                                                                                          C-C) (CHEMOKINE CC).
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35
93 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -i- INDUCTION: BY MITOGENS.
-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LODI P.J., GARRETT D.S., KUSCEWSKI J., TSANG M.L.S., WEATHERBEE J.A., LEONARD W.J., GRONENBORN A.M., CLORE G.M.;
"High-resolution solution structure of the beta chemokine hMIP-1 beta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "The gene encoding the Act-2 cytokine. Genomic structure, HTLV-1/Tax responsiveness of 5' upstream sequences, and chromosomal
                                                                                                                            BAIXERS E., ROMAN-ROMAN S., JITSURAWA S., GENEVEE C., MECHICHE S., VIEGAS-PEQUIGNOT E., HERCEND T., TRIEBEL F.; VIEGAS-PEQUIGNOT E., HERCEND T., TRIEBEL F.; "Cloning and expression of a lymphocyte activation gene (LAG-1)."; MOL. IMMUNOL. 27:1091-1102(1990).
                                                                                                                                                                                                                                                                                                                                                        NAPOLITANO M., MODI W.S., CEVARIO S.J., GNARRA J.R., SEUANEZ H.N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 90038522.
MILLER M.D., HATA S., WAAL MALEFYT R., KRANGEL M.S.;
MILLER M.D., PEPPLIGE Secreted by activated human T lymphocytes.";
"A novel polypeptide secreted by activated human T lymphocytes.";
J. IMMUNOL. 143:2907-2916(1989).
                                                                                                                                                                                                                                           CHANG H.C., REINHERZ E.L.; change h.C., and characterization of a cDNA encoding a putative risolation and characterization of a cDNA encoding a putative on cytokine which is induced by stimulation via the CD2 structure on
   BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
"A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.";
J. IMMUNOL. 142:679-687(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                  Salization.";
BIOL. CHEM. 266:17531-17536(1991).
                                                                                                                                                                                                                                                                                          human T lymphocytes.";
EUR. J. IMMUNOL. 19:1045-1051(1989).
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E35870; ALT_SEQ.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 6-92 FROM N.A.
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D30552.
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                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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                                                                                                                                                                                                            SEQUENCE FROM N.A.
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                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                     MEDLINE; 89325421
                                                                                                                        91061800
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PIR; D30552; C
PIR; JH0319; J
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EMBL; X53682;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -i-SUBUNIT: HOMODÍMER (BY SIMILARITY).
-i-SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (IMMUNE
ACTIVATION PROTEIN 2) (ACT-2).
                                                                                                  MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.

BY SIMILARITY.

BY STMILARITY.

T -> C (IN REF. 7).

A -> S (IN REF. 6).

P -> L (IN REF. 5).

ARKLPR -> REASS (IN REF. 3).

S -> I (IN REF. 7).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MORI S., GOTO K., GOTO F., MUTAKAMI K., OHKAWARA S., YOSHINAGA M.;
MORI S., GOTO K., GOTO F., MUTAKAMI K., OHKAWARA S., YOSHINAGA M.;

"Dynamic changes in mRNA expression of neutrophils during the course of acute inflammation in rabbits.";

of acute inflammation in rabbits.";

INT. IMMUNOL. 6:149-156(1994).

-:- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES
                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                         INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EUKARYOTA; METAZOA; CHÒRDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
LAGOMORPHA; LEPORIDAE; ORYCTOLAGUS.
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0
                                                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                    Length 92;
                                                                                                                                                                                                                                                                                                                                                                                               score 86; DB 1; Let
Pred. No. 9.35e-07;
0; Mismatches 1;
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S -> I (IN REF. 7
S -> G (IN REF. 6
S -> T (IN REF. 7
                                                                                                                                                                                                                                                                                                                                                                         10212 MW; F18E7AFD CRC32;
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                                                  PROSITE; PSO0472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPO
                                                                                                                                                                                                                                                                                                                                                                                                       , Match 92.5%; Score 86; Local Similarity 91.7%; Pred. No. 91.7%; Pred. No. 91.7%; Pred. No. 91. Conservative 0; Mismai
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORYCTOLAGUS CUNICULUS (RABBIT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN=NEW ZEALAND WHITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; D17402; G599578; -
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                                                                                                                                                          72 QVCADPSESWVQ 83
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A37411; A37411.
1HUM; 30-APR-94.
1HUN; 30-APR-94.
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334
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                                              182284;
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CONFLICT
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C STRAIN=WIGGRAN;

X MEDLINE; 96183056.

A MARGAWA H. SHIOTA S., TAKANO K., SHIBATA F., KATO H.;

ANARGAMA H. SHIOTA S., TAKANO K., SHIBATA F., KATO H.;

AT "CYTCAkine-induced neutrophil chemostractant (CINC)-2 alpha, a novel

XT member of rat GRO/CINCs, is a predominant chemokine produced by

XI lipopolysaccharide-stimulated rat macrophages in culture.";

XI LIPOPOLYSACCHARIDE RES. COMMUN. 220:945-948[1996].

SC -!- FUNCTION: MONOKINE WITH INTAMARANE AND CHEMOKINETIC ROPPERTIES.

BASOPHILS, MONOKINE WITH INTAMARANE AND SUBSEMBLE DOR LUNG INFIALA

C RADOUCTION, NEUTROPHIL RECRUITMENT AND SUBSEMBLE LALPHA

MAY FONCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE

C PRODUCTION OF THE ALBHA WHICH IN TURN UP-REGULATES VASCULAR

PRODUCTION MOLECULES REQUIRED FOR NEUTROPHIL INFLUX. THIS PROTEIN
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                                                       BY SIMILARITY.
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SHI M.M., GODLESKI J.J., PAULAUSKIS J.D.,
"Molecular cloning and posttranscriptional regulation of macrophage
inflammatory protein-1 alpha in alveolar macrophages.";
BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
                                                                                                                                                                                                                                                                                                                                        01-0CT'1996 (REL. 34, CREATED)
01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.; "Role of macrophage inflammatory protein-1 alpha (MIP-1 alpha) in
                                                                                                                                                                                                 ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                       RATIUS NORVEGICUS (RAT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATIUS.
                                                                                                                                                                                            1; Indels
                                                                                                                                                      Score 83; DB 1; Length 92;
                           CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                       Pred. No. 4.63e-06;
1; Mismatches 1
                                                                                                                        A629AB2D CRC32;
                                                                                                                                                                                                                                                                                                                       92 AA.
                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ite lung injury in rats.";
IMMUNOL. 154:4793-4802(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=LONG EVANS; TISSUE=LUNG; MEDLINE; 95238980.
                                                                                                                 92 AA; 10066 MW;
                                                                                                                                                      Match
Local Similarity 83.3%;
                                                                                                                                                                                  10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
STRAIN=CD-1; TISSUE-LUNG;
MEDLINE; 95298037.
                                                                                                                                                                                                                                                                                                                 STANDARD;
PFAM; PF00048; il8; 1.
                                                                                                                                                                                                               72 QVCANPSESWVQ 83
                                                                                                                                                                                                                                             1 OVCADPSEEWVQ 12
                      P13236; 1HUN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEÓUENCE OF 24-57.
                                                                                              DISULFID
SEQUENCE
                                                                                  DISULFID
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MI1A_RAT
P50229;
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                                                                            CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
                                                                                                            MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -:- SUBDRIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-:- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "CDNA cloning of guinea pig monocyte chemoattractant protein-1 and expression of the recombinant protein.";
J. IMMUNOL. 150:5025-5022(1993).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
                                                                                                                                                                                                                                      .
                                                                                                                                                                                                                                                                                                                                                                                                                                CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA: METAZOA; CHORDAIA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; HYSTRICOGNATHI; CAVIIDAE; CAVIA.
                                                                                                                                                                                                                                                                                                                                                    01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MONOCYTE CHEMOTACTIC PROTEIN 1
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                  2; Indels
                                                                                                                                                                                                   Score 78; DB 1; Length 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 77; DB 1; Length 120;
                                                                                                                                                 A -> T (IN REF. 2).
C -> W (IN REF. 2 AND 3).
F48CF89F CRC32;
                                                                                                                                                                                                                   Pred. No. 6.33e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL.
22FAD257 CRC32;
                                                                                                                                                                                                                              1; Mismatches
                                                                                                                          BY SIMILARITY
BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY.
BY SIMILARITY.
                                    PROSITE, PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P13236; 1HUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; i18; 1. HSSP; P80098; 1NCV.
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                                                                                                                                                        57 57
92 AA; 10335 MW;
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                                                                                                                                                                                                                           9; Conservative
           EMBL; U22414; G790633; -
EMBL; U06435; G459150; -
                                                                                                                                                                                                                                                                                                                                                                                                        CHEMOATTRACTANT PROTEIN-1)
                                                                                                                                                                                                                                                                                                                                  STANDARD;
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                                                                                                                                                                                                                                                                        1 OVCADPSEEWVO 12
                                                                                                                                                                                                                                                  71 QICADPKETWVQ 82
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73
                                                                                                                                                                                                             Local Similarity
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120 AA;
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                                                                                                                                                                                                                                                                                                                  LT 6
MCP1_CAVPO
Q08782;
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                                                                                                                             DISULFID
                                                                                                                    DISULFID
                                                                                                                                                                      SEQUENCE
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                                                                                          SIGNAL
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Best Local Similarity
              8
MCP1_MOUSE
P10148;
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                                                                 SOLUTION OF A PROPERTY OF A PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TIMMERS H.T.H.M., PRONK G.J., BOS J.L., VAN DER EB A.J.; Analysis of the rat JE gene promoter identifies an AP-1 binding site essential for basal expression but not for TPA induction."; NUCLEIC ACIDS RES. 18:23-34(1990).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YOSHIMURA T., TAKEYA M., TAKAHASHI K.; "MOJecular cloning of rat monocyte chemoattractant protein-1 (MCP-1) and its expression in rat spleen cells and tumor cell lines."; BIOCHEM. BIOPHYS. RES. COMMUN. 174:504-509(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.

BY SIMILARITY.

MONOCYTE CHEMOTACTIC PROTEIN 1.

PYRROLIDONE CARBOXYLIC ACID (BY
                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
                                                                                                                                                                                                                                                                                                                01-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (IMMEDIATE-EARLY
SERUM-RESPONSIVE JE PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
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RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 77; DB 1; Length 148;
Pred. No. 1.06e-04;
3; Mismatches 1; Indels
                      Indels
Pred. No. 1.06e-04;
3; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB97F97C CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
STRAIN-WAG/RIJ; TISSUE-KIDNEY;
                                                                                                                                                                                                                                                                                               (REL. 14, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           82.8%;
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  Best Local Similarity 66.7%;
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; M57441; G205334; -. PIK; JN0128; JN0128. PIK; S07723; S07723.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; X17053; G55531; -.
                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               RATTUS NORVEGICUS (RAT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PROSITE: PS00472; SMALI
PFAM; PF00048; 118; 1.
HSSP; P13500; 1DOL.
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1 QVCADPSEEWVQ 12
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                                                                                  71 EVCADPTOKWVO 82
                                                                                                                                     1 QVCADPSEEWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                     SCYA2 OR JE OR MCP1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SECUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 90174947.
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                                                                                                                                                                                                                                                                              P14844;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -i-SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-i-INDUCTION: BY PLATELET-DERIVED GROWTH FACTOR.
-i-SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VAN DAMME J., DECOCK B., BERTINI R., CONINGS R., LENAERIS J.-P., VAN DAMME J., DECOCK B., MANTOVANI A.;
"Production and identification of natural monocyte chemotactic protein from virally infected murine fibroblasts. Relationship with the product of the mouse competence (JE) gene.";
EDR. J. BIOCHEM. 199:223-229(1991).
--- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ROLLINS B.J., MORRISON E.D., STILES C.D.; "Cloning and expression of JE, a gene inducible by platelet-derived growth factor and whose product has cytokine-like properties."; PROC. NATL. ACAD. SCI. U.S.A. 85:3738-3742(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
                    15-JUL-1998 (REL. 10, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (PLATELET-DERIVED SCYMTH FACTOR-INDUCIBLE PROTEIN JE).
SCYAZ OR MORPIOR JE.
MUS MITSCITTER.
                                                                                                                                                                                                                                                                                                                                                                                   KAWAHARA R.S., DEUEL T.F.;
Piplatelet-derived growth factor-inducible gene JE is a member of a
family of small inducible genes related to platelet factor 4.";
J. BIOL. CHEM. 264:679-682(1989).
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                                                                                                                                                                                                                                   EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 77; DB 1; Length 148;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   126 POTENTIAL.
16326 MW; B7572BBC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY.
BY SIMILARITY.
148 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      82.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; J04467; G387169; -. EMBL; M19681; G387168; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PFAM; PF00048; il8; 1.
HSSP; P13500; 1DOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23
148
24
        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PIR; S16226; S16226.
MGD; MGI:98259; SCYA2.
PROSITE; PS00472; SMAI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               34
35
126
148 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PIR; A30209; A30209.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIR; A30861; A30861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 26-42.
                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88234501
                                                                                                                                                                                                                                                                                                                                                               89093129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE; 91293127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE;
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                                                                                                                                                                                                                                                                                                                      STRAIN-LONG EVANS; TISSUE-LUNG;
JONES M.L., SHANLEY T.P., SCHAAL H., FRIEDL H.P., WARD P.A.;
JONES M.L., SHANLEY T.P., SCHAAL H., FRIEDL H.P., WARD P.A.;
SUBMITTED (FEB-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- SUBMITT: HOMODIMER (BY SIMILARITY)
-!- SUBMITT: HOMODIMER (BY SIMILARITY)
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC).
               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE-BONE MARROW;
MEDLINE; 95369710.
PETRENKO O., ISCHENKO I., ENRIETTO P.J.;
"Isolation of a cDNA encoding a novel chicken chemokine homologous to mammallan macrophage inflammatory protein-1 beta.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY.
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
BY SIMILARITY.
BY SIMILARITY.
3C82B006 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                        01-0CT-1996 (REL. 34, CREATED)
01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-0CT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA).
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0
                                                                                                                                                                                                                                                        EURARYOTA; METAZOA; CHÓRDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EUKARYOTA; METAZOA; CHÖRDATA; VERTEBRATA; ARCHOSAURIA; AVES;
NEOGNATHAE; GALLIFORMES; PHASIANIDAE; PHASIANINAE; GALLUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1997 (REL. 35, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA HOMOLOG PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 76; DB 1; Length 92;
Pred. No. 1.77e-04;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
           2;
        1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. 
PFAM; PF00048; i18; 1. 
HSSP; P13236; 1HUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92 AA; 10234 MW;
      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity 81.8%;
                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                         RATTUS NORVEGICUS (RAT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; U06434; G459148; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GALLUS GALLUS (CHICKEN).
                                 73 EVCADPKKEWVQ 84
                                                              1 QVCADPSEEWVQ 12
                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     72 QICADPSEPWV 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 QVCADPSEEWV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                             LT 9
MI1B_RAT
P50230;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MI1B_CHICK
Q90826;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
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Matches
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                                                                                                                 RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                          (BY SIMILARITY).
-1- SUBDMIT: HOMODIMER (BY SIMILARITY).
-1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                             PETRENKO O., ENRIETTO P.J.;
SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             UGUCCIONI M., LOEISCHER P., FORSSMANN U., DEWALD B., LI H., LIMA S.H., LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.; "Monocyte chemotactic protein 4 (MCP-4), a novel structural and functional analogue of MCP-3 and eotaxin.";

J. EXP. MED. 183:2379-2384(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 97113354.

GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
LAVIGNE F., HAMID Q., MURPHY P.M., LUSTER A.D.;
"Human monocyte chemoattractant protein (MCP)-4 is a novel CC
chemokine with activities on monocytes, eosinophils, and basophils
induced in allergic and nonallergic inflammation that signals through
the CC chemokine receptors (CCR)-2 and -3.";
IMMUNOL. 157:5613-5626(1996).
                                                                                                                                                                                                                                                                                                                                                                                    BY SIMILARITY.
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HOMO SAPIENS (HUMAN).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
CHEMOATTRACTANT PROTEIN 4) (CK-BETAIO) (NCC-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 75; DB 1; Leuyun. Pred. No. 2.94e-04; ".'matches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                   L -> M (IN REF. 2).
B5637084 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
                                                                                                                                                                                                                                                                                                                  PROSITE, PS00472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; 118; 1. HSSP; P13236; 1HUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5-JUL-1998 (REL. 36, CREATED)
                                                                                                                                                                                                                                                                                                                                                                CYTOKINE; CHEMOTAXIS; SIGNAL. SIGNAL 21 21 CHAIN
                                 SEQUENCE OF 14-90 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9969 MM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              larity 58.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  80.68;
                                                                                                                                            C-C) (CHEMOKINE CC).
GENE 160:305-306(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                   EMBL; L34553; G509596;
                                                                                                                                                                                                                                                                                                                                                                                     21
90
72
87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SCYA13 OR MCP4 OR NCC1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            :[||:| ::|||
1 QVCADPSEEWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        70 EVCANPENDWVQ 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 96235049.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LT 11
MCP4_HUMAN
Q99616;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE=HEART
                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
q
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1 QVCADPSEEWVQ 12

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SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PTH: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND (FMPOGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE. (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4. SIMILARITY: BELONGS TO THE INTERCRINE BELA FAMILY (SMALL CYTOKINE SIMILARITY: BELONGS TO THE INTERCRINE BELA FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POWER C.A., MEYER A., RISON S.C.G., GUYE-COULIN F., WELLS T.N.C.;
SUBMITTED (DEC-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTE MONOCYTES, LYMPHOCYTES,
-1- FONCTION: CHEMOTACTIC, BUT NOT NEUTROPHILS. SIGNALS THROUGH
EASOPHILS AND CRS RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
MAI BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTPERIAL
WALL DURING THE DISEASE PROCESS OF ARTHEROSCIEROSIS. MAY PLAY A
ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MASS SPECTROMETRY: MW-9314; MW_ERR=30; METHOD=MALDI; RANGE=17-98.
MASS SPECTROMETRY: MW-9860; MW_ERR=30; METHOD=MALDI; RANGE=22-98.
MASS SPECTROMETRY: MW-8575; MW_ERR=30; METHOD=MALDI; RANGE=24-98.
INDUCTION: BY INTERLEUKIN-1 AND THY-ALPHA.
TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE,
THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS
SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.
MEDILNE: 97341179.

BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBACY N., BERKHOUT T.A., SARAU H.M., MACHEL J.R., FRLEY J.J.,
APPELBAUM E., REAPET T.J., BRANNIER M., MAKHANA J., FOLEY J.J.,
SCHMIDT D.B., INBUNGIA C., MACNULLY D., MACHERE G.,
O'SHANNESY D., SCOTT M., GROOT P.H.E., MACHERE G.,
Cloning, in vitro expression, and functional characterization of a novel human CC chemokine of the monocyte chemotactic protein (MCP) family (MCP-4) that binds and signals through the CC chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MONOCYTE CHEMOTACTIC PROTEIN 4. PYRROLIDONE CARBOXYLIC ACID. PY SIMILARITY. BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. 2.94e-04;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 75; DB 1; Length 98;
                                                                                                                                                                                                                                                                                                                                                                                                                          DANTE M., GIBSON A.;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DF52F6EC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POTENTIAL.
                                                                                                                                                                                                                                                                          receptor 2B.";
J. BIOL. CHEM. 272:16404-16413(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23
98
24
58
74
29
10986 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; U46767; G1732123; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       80.68;
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X98306; E248571; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C-C) (CHEMOKINE CC).
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                                                                                                                                                                                                                                                                                                                                                                                                                       GIBSON A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98 AA;
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                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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Gaps

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66.78;

8; Conservative

Best Local Similarity

Matches

72 EICADPKEKWVQ 83

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-i- SUBUNIT: MONOMER.
-i- PTM: O-GIXCOSYLATED.
-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.; "Structural and functional identification of two human, tumor-derived monocyte chemotactic proteins (MCP-2 and MCP-3) belonging to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.; "Determination of the three-dimensional structure of CC chemokine monocyte chemoattractant protein 3 by 1H two-dimensional NMR
                                                                                                                                                                                                                                                                                                                                                                                                                                                              MINITY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUZUN P.,
MAGAZIN M., MILOUX B., MINTY C., RAMOND P., VITA N., LUPKER J.,
SHIRE D., FERRARA P., CAPUT D.;
"Molecular cloning of the MCP-3 chemokine gene and regulation of its
                                                                                                                                                                                                                                                                                                                    OPDENAKKER G., FITEN P., NYS G., FROYEN G., VAN ROY N., SPELEMAN F., LAUREYS G., VAN DAMME J.;
"The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome
                                                                                                                                                                                                          OPDENAKKER G., FROYEN G., FITEN P., PROOST P., VAN DAWME J.; "Human monocyte chemotactic protein-3 (MCP-3): molecular cloning of the cDNA and comparison with other chemokines."; BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.; "Structural characterization of a monomeric chemokine: monocyte chemoattractant protein-3.";
                                                                                                                               EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; 'MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                       15-JUL-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
                                                                                                                                                                               SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99. MEDLINE; 93213290.
99 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EUR. CYTOKINE NETW. 4:99-110(1993).
                                                                                       CHEMOATTRACTANT PROTEIN 3) (NC28).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     chemoattractant protein-3.";
FEBS LETT. 395:277-282(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRUCTURE BY NMR, AND SUBUNIT
                             01-DEC-1992 (REL. 24, CREATED)
01-NOV-1995 (REL. 32, LAST SEQI
15-JUL-1998 (REL. 36, LAST ANNO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                chemokine family.";
J. EXP. MED. 176:59-65(1992).
                                                                                                                                                                                                                                                                                                                                                                                                            GENOMICS 21:403-408(1994).
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   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-OSTEOSARCOMA;
MEDLINE; 92308855.
                                                                                                                            HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. MEDLINE; 93305913.
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                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. MEDLINE; 94375065.
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 MCP3_HUMAN
P80098;
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KODELJA V., MUELLER C., POLITZ O., HAKIY N., ORFANOS C.E., GOERDI S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE SCYAIS OR MIP4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HIESHIMA K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K.,
NAKAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
MIURA R., OPDEMNKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.,
"A novel human CC chemokine PARC that is most homologous to
macrophage-inflammatory protein-1 alpha/LD78 alpha and chemotactic
for T lymphocytes, but not for monocytes.";
IMMUNOL. 159:1140-1149(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
0
                                                                                                                                                                                                                                                   PROSITE; PS00412; SMALL_CYTOKINES_CC; 1.
PRAM; PF00048; 118; 1.
CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
                                                                                                                                                                                                                                                                                                                              MONOCYTE CHEMOTACTIC PROTEIN 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 75; DB 1; Lengt... ...
Pred. No. 2.94e-04;
".hes 1; Indels
                                                                                                                                                                                                                                                                                                                                             PYRROLIDONE CARBOXYLIC ACID.
BY SIMILARITY.
BY SIMILARITY.
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MISSING (IN REF. 4)
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"Macrophage inflammatory protein-3 and -4.";
PATENT NUMBER US5504003, 02-APR-1996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
TISSUE-AORTA, AND LUNG;
MEDLINE; 97376836.
                                                                                                                                                                                                                                                                                            POTENTIAL
                                                                                                                               X72309; -; NOT_ANNOTATED_CDS.
X71087; G288399; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                       X71087; G288398; ALT_INIT.
X71087; G288397; ALT_INIT.
                                                                                                             EMBL; X72308; G313708; ALT_INIT
                                                                                                                                                                                                                                                                                                                                                                                                                          11200 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        80.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                               PIR; S32222; S32222.
PIR; A54678; A54678.
PDB; INCV; 15-OCT-97.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73 EICADPTQKWVQ 84
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1 QVCADPSEEWVQ 12
                                                                                                                                                                                    JC1478; JC1478
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                          99 AA;
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                                                                                                                                                                                                                                          MIM; 158106;
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P55774;
                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE
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                                                                                                                                                          EMBL;
                                                                                                                                            EMBL;
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                                                                                                                                                                                    PIR;
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                                                                                                                                                                                                                                                                                                                                                                                                                                         WELLS T. M.C., PETTSCH M.C.;
"The chemokine information source: identification and characterization of novel chemokines using the Worldwideweb and expressed sequence tag databases.";
J. LEUKOC. BIOL. 61:545-56(1997).
-! FUNDTION: CHEMOTACTIC FATTOR THAT ATTRACTS LYMPHOCYTES BUT NOT MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION INTO B CELL FOLLICLES IN LYMPH NODES.
-! TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,
                                                                                                                                                                                                                               THYMUS AND APPENDIX.
-!- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 89067830.
SERRY B., TEKAMP-OLSON P., GALLEGOS C., BAUER D., DAVATELIS G., SHERY B., MASIARZ F., COIT D., CERAMI A.;
"Resolution of the two components of macrophage inflammatory protein macrophage inflammatory protein macrophage inflammatory protein l. and cloning and characterization of one of those components, macrophage inflammatory protein l beta.";
"EXP. MED. 168:2251-2259(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MACROPHAGE INFLAMMATORY PROTEIN 4.
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RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 74; DB 1; Lengtu ... bred. No. 4.88e-04;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 89093958.
BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BY SIMILARITY.
BY SIMILARITY.
052AA3DC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; Y13710; E321838; -.
PROSITE; PSO0472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P13236; 1HUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JAN-1990 (REL. 13, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; AB000221; D1022520; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9849 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                 (CHEMOKINE CC).
                                  DISCUSSION OF SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             68 QICADPNKKWVQ 79
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               89 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-JUL-1998
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P14097;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
SEQUENCE
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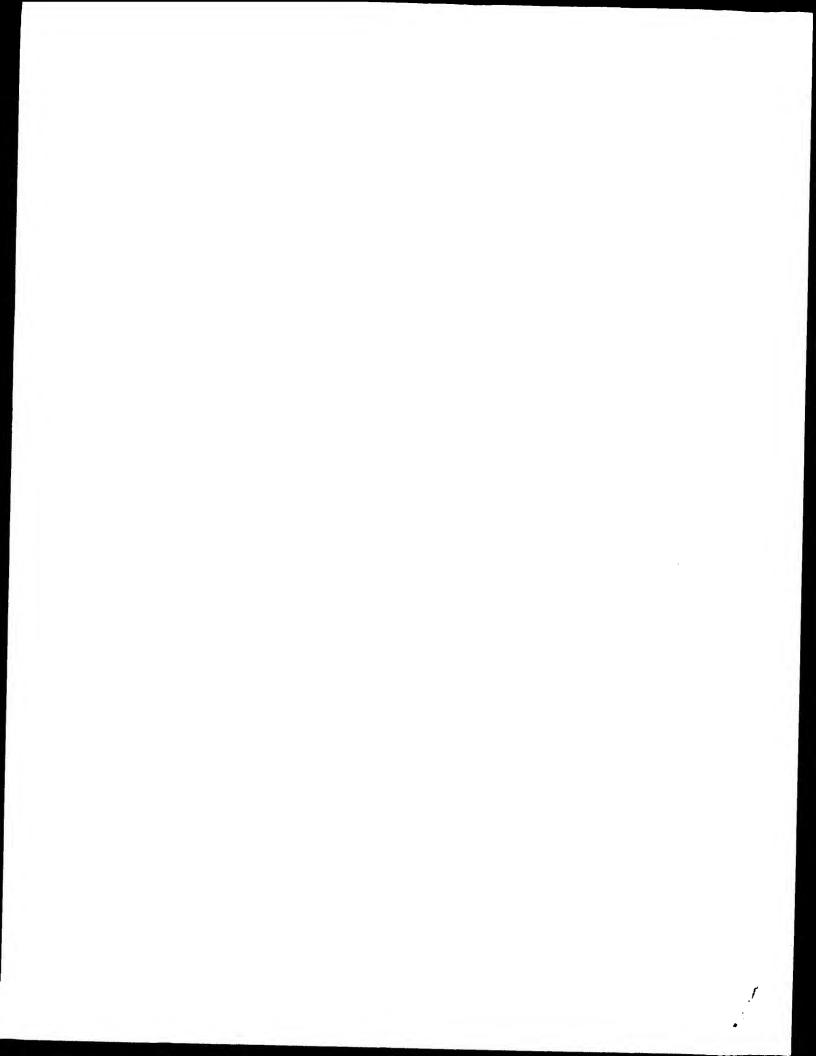
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                                                                                                                                                    SUBMITTED (OCT-1991) TO EMBL/GENBANK/DDBJ DATA BANKS.
-i- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
-i- SUBGNNIT: HOMODIMER (BY SIMILARITY).
-i- SUBGNNIT: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SCHULZ-KNAPPE P., MAEGERT H.-J., DEWALD B., MEYER M., CETIN Y., KUBBIES M., TOMECZKOWSKI J., KIRCHHOFF K., RAIDA M., ADERMANN K., KIST A., REINECKE M., SILLARD R., PARDIGOL A., UGUCCIONI M., BAGGIOLLIM M., FORSSMANN W.-G.;

"HCC-1, a novel chemokine from human plasma.";

J. EXP. MED. 183:295-299(1996).
"A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                        SPRAIN-DBA/20; TISSUE-LIVER;
DAUBERSIES P., LEPRETRE F., BAILLEUL B., GROVE M., PRAGNELL I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 1; Length 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A -> P (IN REF. 1).
E -> Q (IN REF. 1).
D -> H (IN REF. 1).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
CHEMOKINE CC-1 PRECURSOR (HCC-1) (NCC-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C543B91F CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A., AND SEQUENCE OF 20-93.
TISSUE-BONE MARROW;
MEDLINE; 96136773.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   MDD; MGI:99261; SCYA4.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; i18; 1.
HSSP: P13236; 1HUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                 IMMUNOL. 142:679-687(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10168 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       y Match
Local Similarity 72.7%;
hes 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCC1_HUMAN STANDARD;
Q16627;
                                                                                                                                                                                                                                                                                                                                                                             EMBL; M23503; G533245; -. EMBL; M35590; G199697; -.
                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; X62502; G53127; -. PIR; C30552; C30552.
                                                                                                                                                                                                                         C-C) (CHEMOKINE CC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     72 QICANPSEPWV 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 QVCADPSEEWV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             92 AA;
                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                  PLUMB M.A.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                               Gaps
                                                                                                                    PARDIGOL A., MAEGERT H.-J., CIESLAK A., HILL O., SCHULZ-KNAPPE P., FORSSMANN W.-G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Indels
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                     PARDIGOL A., MAEGERT H.-J., ZUCHT H.D., FORSSMANN W.-G., SCHULZ-KNAPPE P.;
                                                     SUBMITTED (MAY-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 73; DB 1; Le
Pred. No. 8.08e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BY SIMILARITY.
BY SIMILARITY.
A3E7BCAD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHEMOKINE CC-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; Z70292; E233856; -.
EMBL; Z49269; G1004267; -.
MIM; 601392; -.
PFAM; PF000472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93 AA; 10678 MW;
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7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   78.5%;
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                                                                                                                                                                                                                                                                                                                                          C-C) (CHEMOKINE CC).
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93
59
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                                                                                               SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
                                                                                                                 TISSUE-PLACENTA;
                 TISSUE=LIVER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 17:21:13 2000; MasPar time 3.56 Seconds 134.882 Million cell updates/sec MPsrch_pp

Tabular output not generated.

Run on:

>US-09-150-813-42 (1-12) from US09150813.pep 93 Title:

1 OVCADPSEEWVO 12 Description: Perfect Score: Sequence:

PAM 150 Gap 15 Scoring table:

122810 seqs, 40068593 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

pir60 1:pirl 2:pir2 3:pir3 4:pir4 Database:

Mean 24.749; Variance 37.567; scale 0.659 Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Pred. No.	2.99e-07		٠	9.32e-06	3.95e-05	2.64e-04	4.22e-04	6.72e-04	6.72e-04	6.72e-04	1.70e-03	4.24e-03	4.24e-03	6.67e-03	1.05e-02	1.05e-02	1.05e-02	1.64e-02	1.64e-02	1.64e-02	1.64e-02	1.64e-02	2.56e-02	
Description	macrophage inflammato	LD78-beta protein pre	monocyte adherence-in	macrophage inflammato	immune activation gen	lymphocyte and monocy	macrophage inflammato	monocyte chemoattract	PDGF-inducible JE gly	immediate-early serum	monocyte chemotactic	macrophage inflammato	monocyte chemoattract	monocyte chemoattract	monocyte chemoattract	macrophage inflammato	monocyte chemoattract	interleukin-8 - dog	•	interleukin-8 - sheep	alveolar macrophage c	interleukin-8 precurs	monocyte chemotactic	
ai	A30574	B35673	C60407	A31767	146730	JE0177	152322	148147	A30209	507723	A54678	C30552	JC2417	A60299	A46539	A32393	JC2136	JN0841	542496	146997	A44253	A53096	JC5295	
DB	5	~	7	-	7	7	~	~	7	~	~	7	2	~	<b>ا</b>	2	~	~	~	2	· C	٠.	0	
Length	92	63	20	92	92	120	92	120	148	148	109	92	0	66	9.5	92	66	50	101	101	103	103	66	
Query Match	100 0	100.0	100	5.00	89.7	84.9	93.0	82.8	0 00	80.00	90.0	78.5		77 4	76.3	76.3	76.3	75.3	75.7	7.7.	7.07		74.2	
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monocyte chemoattract monocyte chemoattract monocyte chemoattract gene C10 protein - mo interleukin-8 precurs transformation-induce RSV-induced protein monocyte chemoattract ectaxin precursor - r ectaxin precursor - r ectaxin precursor - r ectaxin precursor - r interleukin-8 rabbi interleukin-8 rabbi interleukin-8 rabbi interleukin-8 rabbi cytokine SDF-1 beta - Neutrophil attractant lymphotactin precurso Iwmphotactin precurso	reverse transcriptase
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122 999 1 1996 1003 991 1001 1104 1114 1114 1114	385 385
73.1.1 73.1.1 73.1.1 71.0 71.0 71.0 69.9 68.8 68.8 67.7 7.7 67.7 67.7 65.6 63.4 63.4	63.4 63.4
00000000000000000000000000000000000000	20
42000000000000000000000000000000000000	<b>44</b> 45

### ALIGNMENTS

	#10.html.dane nous organisms of a horal 1992 #text_change 29. Aug-1992 #sequence_revision 03-Aug-1992 #text_change 29-May-1998	30412; A24198; na, H.; Shimada (1990) 10:3646- an genes coding	G   4	A30574 Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist,	#journal J. Immunol. (1989) 142:1582-1590 #title Mitogenic activation of human T cells induces two closely ratitle related genes which share structural similarities with a new family of secreted factors. #cross-references_MUID:89140347	<pre>cession A30574 ##molecule_type mRNA # #label ZIP ##residues #erross-references GB:MZ5315; NID:9602452; PID:9602453</pre>	A30412 Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.  DNA Cell Biol. (1990) 9:589-602  Three human homologs of a murine gene encoding an inhibitor of stem cell proliferation.	#crossion #340412 #accession #340412 #accession #340412 #social_type mRNA ##molecule_type mRNA ##residues
RESULT 1 TITLE ALTERNATE_NAMES	ORGANISM DATE	ACCESSIONS REFERENCE #authors #journal #title	#CIOSS-relete #accession ##molecule ##residues ##cross-re	REFERENCE #authors	#journal #title #cross-refer	#accession ##molecule ##residues ##cross-re	REFERENCE #authors #journal #title	#CCOSS FEEEER #ACCESSION #ACCESSION ##INOLECULE ##INOLECULE ##INOLECULE #AUTHOUS #journal #title

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Mol. Cell. Biol. (1990) 10:3646-3658
Structures of human genes coding for cytokine LD78 and their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 #authors Irving, S.G.; Zipfel, P.F.; Balke, J.; McBride, O.W.; Morton, C.C.: Burd, P.R.; Siebenlist, U.; Kelly, K.
C.C.: Burd, P.R.; Siebenlist, U.; Kelly, K.
Tucleic Acids Res. (1990) 18:3261-3270
#title Two inflammatory mediator cytokine genes are closely linked and variably amplified on chromosome 17q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ##Cross references EMBL.X52149; NID:g34750; PID:g296666
This protein is a member of a "small inducible" or "activation specific" gene family, is likely to be an early-acting interleukin, and is the product of a putative G0/G1 switch gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an inhibitor
of stem cell proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                preliminary; not compared with conceptual translation
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##cross-references GB:D90145; NID:9219907; PID:d1014876; PID:9219908
NCE A30412
                                                                                                                                                                                                                                                                                                                                                                                                                0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #formal_name Homo sapiens #common_name man
28-Sep-1990 #sequence_revision 28-Sep-1990 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            macrophage inflammatory protein homolog GOS19-2; small inducible cytokine A4
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##residues 1-93 ##label BLU
##cross-references GB:M24110; GB:M32338; NID:9182848; PID:9182849
                                                                                                                     #gene GDB:SCYA3
##cross-references GDB:120368; OMIM:182283
#map_position 1/q11-1/q21
CLASSIFICATION #superfamily macrophage inflammatory protein
                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                 Score 93; DB 2; Length 92;
Pred. No. 2.99e-07;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B35673 #type complete
LD78-beta protein precursor - human
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                                                                                    1-92 ##label OBA
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#cross-references MUID:86223879
                                            ##status preliminary
##molecule_type mRNA
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Local Similarity 100.0%;
les 12; Conservative
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##residues 1-93
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#domain signal sequence #status predicted #label SIG\
#product LD78-beta protein #status predicted #label MAT
#length 93 #molecular-weight 10161 #checksum 7784
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                                                                                                                                                                                                                                                                                                                                                                                                                                               monocyte adherence-induced protein 5 beta - human (fragment)
#formal_name Homo sapiens #common_name man
06-Nov-1992 #sequence_revision 06-Nov-1992 #text_change
03-May-1996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sporn, S.A.; Elerman, D.F.; Johnson, C.E.; Morris, J.;
Martin, G.; Ladner, M.; Haskill, S.
J. Immunol. (1990) 144.4434-4441
Monocyte adherence results in selective induction of novel genes sharing homology with mediators of inflammation and
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Mechiche, S.; Viegas-Pequignot, E.; Hercend, T.; Triebel,
                                                                                                                                                                                                                                                                           0; Gaps
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07-Jun-1990 #sequence_revision 29-May-1998 #text_change
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                                                                                                                                                                                                         Score 93; DB 2; Length 93; Pred. No. 2.99e-07;
                                                                            #superfamily macrophage inflammatory protein
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#length 50 #checksum 9927
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Pred. No. 9.32e-06;
0; Mismatches 1; Indels
  #gene GDB:SCYA4 ##cross_references GDB:120369; OMIM:182284 #map_position 17411-17921 #introns 26/1; 64/2
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#cross-references MUID:90257367
#accession C60407
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A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.
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Eur. J. Immunol. (1989) 19:1045-1051
Isolation and characterization of a cDNA encoding a putative
cytokine which is induced by stimulation via the CD2
structure on human T lymphocytes.
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J. Immunol. (1989) 142:1582-1590

Mitogenic activation of human T cells induces two closely related genes which share structural similarities with a new family of secreted factors.
                                 ##cross-references GB:X53682; NID:g34217; PID:g34218
##experimental_source natural killer cell, strain CD3-CD2+, F5, 5IIIE5
NACE A40978
                                                                                                                                                                                                                                                                                                                                                                                                     #authors Lipes, M.A.; Napolitano, M.; Jeang, K.T.; Chang, N.T.; Leonard, W.J.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:9704-9708
#title Identification, cloning, and characterization of an immune activation gene.
#cross-references MUID:89071764
                                                                                                                                         Seuanez, H.N.; Leonard, W.J.
J. Blol. Chem. (1991) 266:17531-17536
The gene encoding the Act-2 cytokine. Genomic structure,
HTLV-1/tax responsiveness of 5' upstream sequences, and
                                                                                                            Napolitano, M.; Modi, W.S.; Cevario, S.J.; Gnarra, J.R.;
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A novel polypeptide secreted by activated human T
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##cross-references GB:M23502; NID:9533212; PID:9533213
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##residues 1-19,'L',21-92 ##label ZIP
##cross-references GB:M25316; NID:9602454; PID:9602455
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                                                                                                                                                                                                                                                                                                              Chang, H.C.; Reinherz, E.L.
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#cross-references MUID:91373378
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##molecule_type mRNA
##molecule_type m7NA
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       ##molecule_type DNA
##residues 1-92 ##label BAI
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#accession D30552
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lymphocyte and monocyte chemoattractant CC chemokine - human #formal_name Homo sapiens #common_name man 10-11-1998 #sequence_revision 10-Jul-1998 #text_change JF-Mar-1999
                                                                      ts annotation; conformation and disulfide bond assignments by (1)H-NMR, residues 24-92
This protein is secreted by activated lymphocytes and monocytes. It is bound by chemokine (C-C) receptor 5 (see PIR:A43113) and receptor 1 (see PIR:A45177).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      #journal Int. Immunol. (1994) 6:149-156
#title Dynamic changes in mRNA expression of neutrophils during the course of acute inflammation in rabbits.
#cross_references MUID:94198229
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#product macrophage inflammatory protein 1 beta #status
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#authors Clore, G.M.; Lod1, P.J.; Garrett, D.S.; Gronenborn, A.M.
#submission submitted to the Brookhaven Protein Data Bank, January 1994
#cross-references PDB:1HUM
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Yoshinaga, M.
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immune activation gene 2 - rabbit
#formal_name Oryctolagus cuniculus #common_name domestic
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##molearis_type mRNA
#### ### preliminary; ###preliminary; ###preliminary; ###preliminary;
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Pred. No. 9.32e-06;
0; Mismatches 1; Indels
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#length 92 #molecular-weight 10212 #chec
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Best Local Similarity 83.3%;
Matches 10; Conservative
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Local Similarity 91.7%;
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#introns 26/1; 64/2
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#cross-references MUID:90174947
                                    Query Match 82.8%;
Best Local Similarity 66.7%;
Matches 8; Conservative
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#journal Biochem. Biophys. Res. Commun. (1998) 247:217-222
#title Isolation and characterization of LMC, a novel lymphocyte and monocyte chemoattractant human CC chemokine, with myelosuppressive activity.
#cross-references MUID:98308096
#accession JE0177
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J. Immunol. (1993) 150:5025-5032
cDNA cloning of guinea pig monocyte chemoattractant protein-1
and expression of the recombinant protein.
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macrophage inflammatory protein-lalpha - rat
#formal_name Rattus norvegicus #common_name Norway rat
29-May-1998 #sequence_revision 29-May-1998 #text_change
02-Jul-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
Biochem. Biophys. Res. Commun. (1995) 211:289-295
Molecular cloning and posttranscriptional regulation of
macrophage inflammatory protein-1 alpha in alveolar
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#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
                                                                                                                                              #length 120 ##label YOU #checksum 230
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FICATION #superfamily macrophage inflammatory protein
Y #length 92 #molecular-weight 10335 #checksum 3184
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Pred. No. 2.64e-04;
6; Mismatches 0; Indels
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#length 120 #molecular-weight 13741 #check:
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##cross-references GB:L04985; NID:9349820; PID:9349821
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##residues 1-92 ##label RES
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#cross-references MUID:95298037
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larity 50.0%;
Conservative
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Local Similarity 75.0%;
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Platelet-derived growth factor-inducible gene JE is a member of a family of small inducible genes related to platelet
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Nucleic Acids Res. (1990) 18:23-34
Analysis of the rat JE gene promoter identifies an AP-1
binding site essential for basal expression but not for TPA
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monocyte chemoattractant protein-1
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PDGF-inducible JE glycoprotein precursor - mouse
#formal_name Mus musculus #common_name house mouse
01-Dec-1989  #sequence_revision 01-Dec-1989 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                            #authors Rollins, B.J.; Morrison, E.D.; Stiles, C.D.
#journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:3738-3742

#title Cloning and expression of JE, a gene inducible by platelet-derived growth factor and whose product has cytokine-like properties.
#cross-references MUID:88234501
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##cross-references GB:M19681; NID:9193486; PID:9387168; GB:M19682
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29-Jan-1993 #sequence_revision 29-Jan-1993 #text_change
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Score 77; DB 2; Length 148;
Pred. No. 6.72e-04;
1; Mismatches 2; Indels
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##molecule_type DNA; mRNA
##residues
1-148 ##label KA2
##cross-references GB:J04467; NID:g193488; PID:g387169
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#accession A44771
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Opdenakker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.; Speleman, F.; Laureys, G.; Van Damme, J. Genomics (1994) 21:403-408
The human MCP-3 gane (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome
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Human monocyte chemotactic protein-3 (MCP-3): Molecular
cloning of the cDNA and comparison with other chemokines.
                                                                                                                                                                                                                                                                                                             ##experimental_source spleen cells
##note the authors translated the codon GAA for residue 62 as
#note Lys and GCT for residue 63 as Leu
                                                                                                                         Biochem. Biophys. Res. Commun. (1991) 174:504-509
Molecular cloning of rat monocyte chemoattractant protein-1
(MCP-1) and its expression in rat spleen cells and tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                        #domain signal sequence #status predicted #label SIG\
#product immediate-early serum-responsive protein JE
#status predicted #label MAT
#length 148 #molecular-weight 16460 #checksum 4876
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monocyte chemotactic protein 3 precursor - human
monocyte chemoattractant protein MCP-3
#formal_name Homo sapiens #common_name man
28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
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##cross-references GB:M57441; NID:9205333; PID:9205334
                                                                 ##cross-references EMBL:X17053; NID:955530; PID:955531
                                                                                                              Yoshimura, T.; Takeya, M.; Takahashi, K.
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Pred. No. 6.72e-04;
3; Mismatches 1;
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                                                      1-148 ##label TIM
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#cross-references MUID:94375065
                                                                                                                                                                                                                  #cross-references MUID:91128376
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Local Similarity 66.7%;
les 8; Conservative
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                                    ##molecule_type DNA
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#journal J. Exp. Med. (1988) 168:2251-2259
#title Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.
#cross-references MUID:89067830
#accession JL0088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #authors Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.
#cross-references MUID:89093958
#accession C30552
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Davatelis, G.; Wolpe, S.D.; Masiarz, F.; Colt, D.; Cerami,
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macrophage inflammatory protein 1-beta precursor - mouse
H400; SIS gamma: T-cell activation protein gamma
#formal_name Mus musculus #common_name house mouse
28-Aug-1989 #sequence_revision 28-Aug-1989 #text_change
                                                                                                                                                                                                                                                                                                                                                                                  #product monocyte chemotactic protein 3 *status
predicted #label MAT\
#binding_site carbohydrate (Asn) (covalent) *status
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              predicted
#length 109 #molecular-weight 12356 #checksum 1535
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##residues 1-92 ##label SHE
##cross-references GB:M35590; NID:g199696; PID:g199697
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     #residues 1-92 ##label BRO ##cross-references GB:M23503; NID:9533244; PID:9533245
                                                                                                                                                                                                                                                                       *superfamily macrophage inflammatory protein cytokine; glycoprotein; inflammation
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58.3%; Pred. No. 1.70e-03;
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                                                                                                                                                                                       ##cross-references GDB:138473; OMIM:158106
#map_position 17q11-17q12
#introns 36/1: 75/2
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                                                                                                                   macrophages and monocytes.
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Matches 7; Conservative
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##molecule_type mRNA
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1 QVCADPSEEWVQ 12
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#domain signal sequence #status predicted #label SIG\
#product macrophage inflammatory protein 1-beta #status
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monocyte chemoattractant protein-2 precursor - pig
#formal_name Sus scrofa domestica #common_name domestic pig
24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
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Scheit, K.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Monocyte chemoattractar protein 1 precursor - human GDCF-1; glioma-derived monocyte chemotactic factor 1; MCAF; MCP-1; monocyte chemotactic factor 1; monocyte secretory protein; tumor-derived chemotactic factor 2 (GDCF-2) #formal_name Homo sapiens #common_name man 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
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Porcine luteal cells express monocyte chemoattractant
protein-2 (MCP-2): Analysis by CDNA cloning and northern
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#binding_site carbohydrate (Asn) (covalent) #status
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A35474; A33476; S03339, I51841; A60299; A32300; A32396;
A34561; I57488; JC1096
                                                                                                                                                                                                                                                                               #molecular-weight 10168 #checksum 7516
                                                                                                                                                                                                                                                                                                                                                            1; Indels
                                                                                                                           #superfamily macrophage inflammatory protein
                                                                                                                                                                                                                                                                                                                     Score 73; DB 2; Length 92;
Pred. No. 4.24e-03;
                                                  ##cross-references EMBL.X62502, NID:953126, PID:953127
T This protein is a monokine.
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                                     1-92 ##label DAU
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#accession JC2417
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Local Similarity 72.7%;
Les 8; Conservative
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                   ##molecule_type_DNA
##residues 1-9
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| QVCADPSEEWV 11
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Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
Mol. Cell. Biol. (1989) 9:4687-4695
The human homolog of the JE gene encodes a monocyte secretory
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                    Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.
Biochem. Blophys. Res. Commun. (1990) 169:346-351
Structure of human monocyte chemotactic protein gene and its
regulation by TPA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        ##cross-references GB:M30816; GB:M31625; GB:M31626; NID:g188701;
PID:g386961
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#journal Adv. Exp. Med. Biol. (1991) 305:47-56
#title Human monocyte chemoattractant protein-1 (MCP-1).
#cocession 151841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ##status preliminary; translated from GB/EMBL/DDBJ ##molecule_type mRNA #residues 1-99 ##label YO2 ##cross-references GB:S71513; NID:9240867; PID:9240868
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FEBS Lett. (1989) 244:487-493
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#cross-references MUID:89153605
#accession S03339
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#cross-references MUID:90097880
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#ittle Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.
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#product monocyte chemoattractant protein 1 #status
experimental #label MAT\
#product monocyte chemoattractant protein 1, short form
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#modified site pyrrolidone carboxylic acid (Gln) (in
mature form) #status experimental\
#binding_site carbohydrate (Asn) (covalent) #status
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18-Jun-1993 #sequence_revision 16-Aug-1996 #text_change
22-Jan-1999
       Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854
Complete amino acid sequence of a human monocyte
chemoattractant, a putative mediator of cellular immune
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#map_position 1/q11.2-17q12
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS
CYTOKINE: glycoprotein; inflammation; pyroglutamic acid
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##residues 1-99 ##label LIY
##cross-references GB:S69738; NID:9545464; PID:9545465
##RCP JC1096
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Pred. No. 6.67e-03;
3; Mismatches 2;
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/x',25-99 ##label ROB
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#cross-references MUID:89184525
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Best Local Similarity 58.3%;
Matches 7; Conservative
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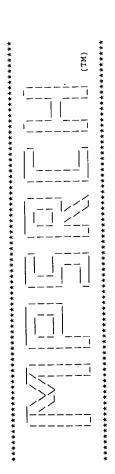
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Kidney Int. (1992) 41:220-225
Isolation and characterization of cDNA from renal tubular
epithelium encoding murine Rantes: A small intercrine from
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#journal Mol. Cell. Biol. (1994) 14:2914-2925
#title Definition of a lipopolysaccharide-responsive element in the 5. flanking regions of MuRantes and crg-2.
#cross_references_MUID:94217689
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               #authors Danoff, T.M.; Lalley, P.A.; Chang, Y.S.; Heeger, P.S.; Nellson, E.G. 1894) 152:1182-1189  
#journal J. Immunol. (1994) 152:1182-1189  
#title Cloning, genomic organization, and chromosomal localization of the SoyaS gene encoding the murine chemokine RANTES.
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Eur. J. Immunol. (1992) 22:1477-1481

Molecular cloning and expression of the murine RANTES

Cytokine: structural and functional conservation between
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#status predicted #label MAT
#th 91 #molecular-weight 10071 #checksum 3010
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      ##molecule_type DNA
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I48875
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Job time : 31 secs.



Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 17:20:38 2000; MasPar time 3.60 Seconds 70.794 Million cell updates/sec MPsrch_pp Run on:

rabular output not generated.

(1-12) from US09150813.pep 93 >US-09-150-813-42 Description:

1 QVCADPSEEWVQ 12 Perfect Score: Sequence:

Scoring table:

170751 seqs, 21266608 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

39:part39 a-geneseq35 Database:

Mean 18.220; Variance 70.223; scale 0.259 Statistics: Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

		dР						
Result No.	Score	Query Match	Query Match Length DB	DB	ID	Description	Pred. No	NO
				1				
-	6	100.0	63	7	R38974	N1-6 LD78 Pro7>Ser.	5.886	.88e-02
10	0 0	1001	99	7	R38948	N1-3 LD78.	5.88e-02	-02
9 0	0.0	0.001	9		R38982		5.88e-02	-05
7	9 6	000	0 0	. ~	P38983		5.88e-02	-02
* 1	0 0	0 0		٠.	020030		5.88e-02	-02
n	27	0.001		- 1	00000		00	0
φ	66	100.0		7	R38955		20.88e-02	70-6
7	693	100.0		7	R38932	Asp26>Ala.	ω.	-05
. α	60	100.0		7	R38931	LD78 Phe23>Asn, Ile24	'n	88e-02
σ	6.6	100.0		7	R38930	LD78 Arg17>Ser.	5.88	88e-02
, -	6.6	100.0		7	R38937		υ.	88e-02
2 -	) E	100.0	69	7	R38936	Arg47>Glu.	Š.	88e-02
11	80	100.0	· ·	7	R38954	LD78 Phel2>Ala.	5.88	88e-02
7 -	600	0.001	· w	7	R38929		5.88	88e-02
7	2 6	100	·	7	R38943	LD78 Glu29>Arg.	5.88	88e-02
1.	9 6	100.0	69	_	R38944	_	5.88	88e-02
16	86	100.0	69	7	R38958	LD78 Arg47>Ser.	5.88	88e-02

	88	5.88e-02	88	œ	88e-	88e-	88e-0	88e-0	88e-0	88e-0	.88e-0	.88e-0	88	.88e-0	.88e-0	.88e-	.88e-0	88	.88e-	.88e-0	.88e-0	.88e-0	.88e-0	.88e-0	.88e-0	.88e-0	.88e-	.88e-0	
		Arg47	Arg45		G1n18									G1u29					LD78.		rl>Pro	rl>Pro	, (Gln,	ein	ell inh	protein.	inhibitor,		
Ile24>Asn.	Glu29>Ser.	Phe28>Glu,	7	Ala9>Ser.	Arg17>Ser,	Asp5>Arg.	Gln18>Ser.	۸		Lys44>Ser.	5>A	Glu66>Ser		Asp26>Ala,	Ala3>Glu.	Ala3>Ser.	Leu2>Ala.	78 Asp26>Ala,	erl>Pro L	la-LD78.	-Ser-Ala-Ser1>Pro	Leu-Ser-Ala-Serl>Pro	Arg17>Glu,	MILA proteir	ste	MI10	cell inhil	1-alpha.	5
LD78	æ	œ	œ	œ	œ	LD78	ന	8	œ	œ		œ	LD78	LD78	LD78	LD78	LD78	LD78	Ala-S	Ser-A	Leu-S	ren-s	LD78	Human	Varient	Human	Stem	MTD-1	
93	395	R38941	392	392	394	396	396	397	397	397	(T)	308	908	908	R38965	397	397	908	394	394	R38950	894	896	272	261	8272	R62616	7079	
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100.0		100.0				100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		· · · · ·
6	0 0	63	6	6	0 0	63	63	6	6	6	6	0 0	6	6	0.0	6	6	0 6	6	6	63	6	0	0	Š	6	6	1 0	J.
17	à	0 0	50	25	22	2 6	24	25	2.0	22	80	0 0	G 8	, <del>.</del>	3.5	3 6	3.4	. u	3 6	3.7	. œ	0 6	, <del>4</del>	41	4.2	7	4 4	+ u	40

# ALIGNMENTS

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Example 49; Page 68; 294pp; English.

Example 49; Page 68; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
Analogues of natural stem cell inhibitors, such as LD78 and dition

beyond certain stages (e.g. dodecamer), have improved solution

beyond certain stages (e.g. dodecamer), have improved solution

trility as stem cell protective agents. The analogues may be used

in tumour therapy, psoriasis or other diseases involving hyper-

most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Argl7>Glu (with

Gln18>Glu and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha

analogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                                                                     protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer,
                                                                                     SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha; macrophage inflammatory protein; multimer; tumour therapy; psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 93; DB 7; Length 63;
Pred. No. 5.88e-02;
0; Mismatches 0; Indels
                                                                                                                                                                                           08-JUL-1993.
23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RW, Gilbert RJ;
            R38974 standard; Protein; 63 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 100.0%;
Matches 12; Conservation
                                                       23-NOV-1993 (first entry)
                                                                                                                                                                                                                                                                                                                                          WPI; 93-227322/28.
                                                                            N1-6 LD78 Pro7>Ser
                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                     Hunter MG;
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RESULT
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42 qvcadpseewvg 53 g

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Gaps

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RESULT
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                                                                                                                                                                                                                                                                                                                                                      providing better tissue penetration.

Example 23; Page 58; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties: leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
proliferative stem cells.

Most pref. LD78 analogues are Phel2>Gln; Lys44>Ser, Arg17>Glu (with
Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser, Pref. MIP-lalpha
analogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer, providing better tissue penetration
Example 57; peq 70-71; 294pp: English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-1 alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used
                                                                                                                                                                                                                                                                                                                             Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer,
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                                                                                                                        SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha; macrophage inflammatory protein; multimer; tumour therapy; psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha; macrophage inflammatory protein; multimer; tumour therapy; psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 93; DB 7; Length 66;
Pred. No. 5.88e-02;
0; Mismatches 0; Indels
                                                                                                                                                                                                                23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
14-0CT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RM, Gilbert RJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
14-0CT-1992; GB-021587.
(BRBI') BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RM, Gilbert RJ;
                                              JT 2
R38948 standard; Protein; 66 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R38982 standard; Protein; 69 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    / Match 100.0%;
Local Similarity 100.0%;
                                                                                         23-NOV-1993 (first entry)
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 1 QVCADPSEEWVQ 12
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WO9313206-A.
                                                                                                           N1-3 LD78.
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                                                                                                                                                                                                                                                                                                 Hunter MG;
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Protein with stem cell inhibition activity, e.g. LD78 or MIP-1

Through a unable to form stable multimer higher than dodecamer,

Through a providing better tissue penetration

Example 58, Page 71; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-

Calpha, having mutations to prevent or reduce multimer formation

beyond certain stages (e.g. dodecamer), have improved solution

Competities leading to enhanced productivity and greater therapeutic

utility as stem cell protective agents. The analogues may be used

to tundour therapy, psoriasis or other diseases involving hyper-

Most pref. LD78 analogues are Phel2>dln, Lys44>Ser, Arg1>clu (with

analogues correspond to the pref. LD78 analogues.
                 proliferative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                       Gaps
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in tumour therapy, psoriasis or other diseases involving hyper-
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SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha;
macrophage inflammatory protein; multimer; tumour therapy;
psoriasis; hyperproliferation.
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                                                                                                                                                                   Score 93; DB 7; Length 69;
Pred. No. 5.88e-02;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 93; DB 7; Length 69;
Pred. No. 5.88e-02;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RM, Gilbert RJ;
                                                                                                                                                                                                                                                                                                                                                                                               R38983 standard; Protein; 69 AA.
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R38938 standard; Protein; 69 AA.
                                                                                                                                                                Query Match
Best Local Similarity 100.0%;
Matches 12; Conservative
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Best Local Similarity 100.0%;
Matches 12; Conservative
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23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
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23-DEC-1992; G02390.
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14-OCT-1992; GB-021587.
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WO9313206-A.
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R38932 standard; Protein; 69 AA
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                                                                       Protein with Stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer, alpha - unable to form stable multimer higher than dodecamer, providing better tissue penetration providing better tissue penetration.

Sxample 13: page 54: 294pp; English.

Sxample 13: page 54: 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-1 alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution beyond certain stages (e.g. dodecamer), have improved solution to properties leading to enhanced productivity and greater therapeutic utility as stem cells.

In tumour therapy, psoriasis or other diseases involving hyperic in tumour therapy, psoriasis or other diseases involving hyper.

Most pref. LD78 analogues are Phel2>Gln, Ly844>Ser, Arg1>Gln (with Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyperproliferative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Argl7>Glu (with Gln18>Glu) and, esp., Asp65>Ala and Glu66>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI: 93-22/22/22/22

Protein with stem cell inhibition activity, e.g. LD78 or MIP-1

protein with stem cell inhibition activity, e.g. LD78 or MIP-1

providing better tissue penetration

Example 30; Page 61; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-

lalpha, having mutations to prevent or reduce muttimer formation

beyond certain stages (e.g. dodecamer), have improved solution

properties leading to enhanced productivity and greater therapeutic

utility as stem cell protective agents. The analogues may be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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                                                                                                                                                                                                                                                                                                                                                                           Score 93; DB 7; Length 69;
Pred. No. 5.88e-02;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Edwards RM, Gilbert RJ;
         (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RM, Gilbert RJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
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23-DEC-1991; G8-027319.
14-0CT-1992; G8-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R38955 standard; Protein; 69 AA.
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Best Local Similarity 100.0%;
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Best Local Similarity 100.0%;
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W09313206-A.
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                                                      Hunter MG;
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RESULT

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protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer, alpha - unable to form stable multimer higher than dodecamer, providing better tissue penetration seem of natural stem cell inhibitors, such as LD78 and MIP-2 handogues of natural stem cell inhibitors, such as LD78 and MIP-3 handogues of natural stem cell inhibitors, such as LD78 and MIP-3 handogues of natural stem of prevent or reduce multimer formation contains stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used to tunity as stem cells. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyperproliferative stem cells.

Continerative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with Gln18>Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                             providing better tissue penetration Example 7: Page 52: 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-lalpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used un tumour therapy, psoriasis or other diseases involving hyperproliferative stem cells.

Proliferative stem cells.

proliferative stem cells.

Glil85Glu, and, esp., Asp65Aala and Glu66>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues.
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LD78 Phe233-Asn, lle44-Thr.
SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha;
macrophage inflammatory protein; multimer; tumour therapy;
psoriasis; hyperproliferation.
                       LD78 Asp26>Ala.
SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha;
macrophage inflammatory protein; multimer; tumour therapy;
psoriasis; hyperproliferation.
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                                                                                                                                                                                                                                              23-DEC-1991; GB-027319.
14-CCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
CRAIG S, CZaplewski LG, Edwards RM, Gilbert RJ;
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Craig S, Czaplewski LG, Rdwards Pl
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23-NOV-1993 (first entry)
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23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
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Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
Thought - unable to form stable multimer higher than dodecamer,
Throughing better tissue penetration
Example 5: Page 51; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
Callapha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
cutility as stem cell protective agents. The analogues may be used
proliferative stem cells.
Most pref. LD78 analogues are Phel2>Gln, Ly844>Ser, Arg17>Glu (with
canalogues correspond to the pref. LD78 analogues.
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SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha;
macrophage inflammatory protein; multimer; tumour therapy;
psoriasis; hyperproliferation.
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LD78 Lys60>Gln, Asp64>Asn.
SCI: stem cell inhibition; LD78; ACT2; MIP-lalpha;
macrophage inflammatory protein; multimer; tumour therapy;
psoriasis; hyperproliferation.
                                                                                     93; DB 7; Length 69;
No. 5.88e-02;
fismatches 0; Indels
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Pred. No. 5.88e-02;
0; Mismatches 0; Indels
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) 08-011-193;
08-011-1992; G02390.
/R 23-DEC-1992; GB-027319.
/R 14-CCT-1992; GB-021587.
// GRBI-) BRITISH BIO-TECHNOLOGY LID.
// GRBI-) BRITISH BIO-TECHNOLOGY LID.
// CZaplewski LG, Edwards RW, Gilbert RJ;
// CAPLED CAPLED CAPLED CAPLED CAPPAGE analogues correspond to the pref. LD78 analogues.
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                                                                                                                                              Mismatches
                                                                                        Score 93;
Pred. No.
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23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RM,
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                                                                                  Match 100.0%;
Local Similarity 100.0%;
les 12; Conservative
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Best Local Similarity 100.0%;
Matches 12; Conservative
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                                  69 AA;
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WPI; 93-227322/28.
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WO9313206-A.
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                               Sequence
                                                                                  Query Match
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                           Example 12; Page 54; 294pp; English.

Example 12; Page 54; 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-
halpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
proliferative stem cells.
                                                                                                                                                                              Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                           0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         providing better tissue penetration
Example 11; Page 53; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
halpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
proliferative stem cells.
Most pref. LD78 analogues are Phel2>cln, Lys44>ser, Arg17>clu (with
analogues correspond to the pref. LD78 analogues.
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Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer,
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Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer,
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SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha;
macrophage inflammatory protein; multimer; tumour therapy;
psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                   Score 93; DB 7; Length 69;
Pred. No. 5.88e-02;
0; Mismatches 0; Indels
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Pred. No. 5.88e-02;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski IG, Edwards RM, Gilbert RJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                  R38936 standard; Protein; 69 AA.
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                                                                                                                                                                                                                                                                   100.08;
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Local Similarity 100.0%;
les 12; Conservative
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LD78 Phe12>Ala.
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23-DEC-1992, G02390,
23-DEC-1991; GB-027319,
14-OCT-1992; GB-021587.
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WO9313206-A.
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RESULT
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Example 4: Page 51: 294pp; English.

Analogues of natural stem cell inhibitors, such as LD78 and MIP-
(1 alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution to properties leading to enhanced productivity and greater therapeutic utility as stem cells protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyper.

Crost for the cells.

Crost for the cells.

Considerative stem cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                             providing better tissue penetration
Example 29; Page 60; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
                                                                                                                                                                                                                                                                                                                                                   proliferative stem cells.

Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg1>Glu (with Gfn18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha analogues correspond to the pref. LD78 analogues.

Sequence 69 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                              Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   macrophage inflammatory protein; multimer; tumour therapy; psoriasis; hyperproliferation.
SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha; macrophage inflammatory protein; multimer; tumour therapy; psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 93; DB 7; Length 69;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 93; DB 7; Length 69; Pred. No. 5.88e-02;
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23-DEC-1991; GB-027319.
14-COT-1992; GB-021587.
16 RBB-1 BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RM, Gilbert RJ;
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                                                                                           23-DEC-1992; G02330.
23-DEC-1991; GB-027319.
14-CCT-1992; GB-021587.
(BRBI-) BRITISH BLO-TECHNOLOGY LTD.
CTBAG S, CZADIEWSKI LG, EGWARGS RM, Gilbert RJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
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                                                     Homo sapiens.
WO9313206-A.
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protein with Stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer, alpha - unable to form stable multimer higher than dodecamer, providing better tissue penetration providing better tissue penetration sample 18; page 56; 294pp; English.

25 Example 18; page 56; 294pp; English.

26 Analogues of natural stem cell inhibitors, such as LD78 and MIP-1 alpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution beyond certain stages (e.g. dodecamer), have improved solution to properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyperintiative stem cells.

26 In the contrastive stem cells.

37 Most pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Argl7>Glu (with Gln18>Glu18>Glu1 and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha
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                                                                                                                                                                                                                                                                                                                                                                  LD78 Glu29>Arg. Scription; LD78; ACT2; MIP-lalpha; mccrophage inflammatory protein; multimer; tumour therapy; psoriasis; hyperproliferation.
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SCI; stem cell inhibition; LD78; ACI2; MIP-lalpha;
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Craig S, Czaplewski LG, Edwards RM, Gilbert RJ;
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23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(BRBI-) BRITISH BIO-TECHNOLOGY LTD.
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R38943 standard; Protein; 69 AA.
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Analogues of natural stem cell inhibitors, such as LD78 and MIP-lalpha, having mutations to prevent or reduce multimer formation beyond certain stages (e.g. dodecamer), have improved solution properties leading to enhanced productivity and greater therapeutic utility as stem cell protective agents. The analogues may be used in tumour therapy, psoriasis or other diseases involving hyper-Most pref. LD78 analogues are Phel2>Gln 1844>Ser, Arg17>Gln 18>Gln and esp. Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha Sequence 69 AA; 8888888888888

Query Match 100.0%; Score 93; DB 7; Length 69; Best Local Similarity 100.0%; Pred. No. 5.88e-02; Matches 12; Conservative 0; Mismatches 0; Indels

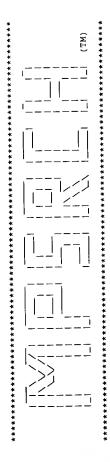
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Gaps ;

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Search completed: Fri Feb 4 17:20:57 2000 Job time : 19 secs.



Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 17:27:45 2000; MasPar time 2.52 Seconds 134.616 Million cell updates/sec MPsrch_pp

Tabular output not generated.

Run on:

>US-09-150-813-43 (1-12) from US09150813.pep 91

Description: Perfect Score:

1 QVCADPSESWVQ 12 Sequence:

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77977 seqs, 28268293 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

swiss-prot37 1:swissprot Database:

Mean 25.122; Variance 33.379; scale 0.753 Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Pred. No.	2.87e-08	1.53e-07	4.59e-07	4.59e-07	4.04e-06	2.01e-05	5.79e-05	9.78e-05	1.65e-04	1.65e-04	1.65e-04	2.76e-04	4.63e-04	4.63e-04	4.63e-04	7.72e-04	7.72e-04	7.72e-04	1.28e-03	1.28e-03	1.28e-03	1.28e - 03	2.13e - 03
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### ALIGNMENTS

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                                                                                                                                                                                                                                                                                                                                      LODI P.J., GARRETT D.S., KUSCEWSKI J., TSANG M.L.S., WEATHERBEE J.A., LEONARD W.J., GRONENBORN A.M., CLORE G.M.;
"High-resolution solution structure of the beta chemokine hMIP-1 beta by multidimensional NMR.";
                                                                                                                                                                                                                                                                                                                                                                                                                                      INDUCTION: BY MITOGENS.
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                              "The gene encoding the Act-2 cytokine. Genomic structure, HTLV-I/Tax responsiveness of 5' upstream sequences, and chromosomal
                                                                                                                                                                                                                                                                                                                                                                                by multidimensional NMR.";
SCIENCE 263:1762-1767(1994).
-!- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
                        CHANG H.C., REINHERZ E.L.; "Isolation and characterization of a cDNA encoding a putative cytokine which is induced by stimulation via the CD2 structure on
                                                                                                                                  NAPOLITANO M., MODI W.S., CEVARIO S.J., GNARRA J.R., SEUANEZ H.N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
                                                                                                                                                                                                                                             MEDLINE; 90038522.
MILLER M.D., HATA S., WAAL MALEFYT R., KRANGEL M.S.;
"A novel polypeptide secreted by activated human T lymphocytes.";
J. IMMUNOL. 143:2907-2916(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
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                                                                                EUR. J. IMMUNOL. 19:1045-1051(1989).
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EMBL, X16166; G32036; --
EMBL, M69203; G1332376; --
EMBL, M69201; G1332376; --
EMBL, M69201; G1332376; JOINED.
EMBL, M69201; G332376; JOINED.
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EMBL; M25316; G602455; -.
EMBL; J04130; G178018; -.
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1HUN; 30-APR-94.
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A37411; A37411.
               MEDLINE; 89325421
                                                                                                       SEQUENCE FROM N.A. MEDLINE; 91373378.
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LODI P.J., GARRETT
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                                                                                                                                                                                                                                                               01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (IMMUNE ACTIVATION PROTEIN 2) (ACT-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (BY SIMILARITY).
-!- SUBUNIT: HOMODIMER (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                      Gaps
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SIGNAL 1 23 BY SIMILARITY.
CHAIN 24 92 MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
DISULEID 34 58 BY SIMILARITY.
DISULEID 35 74 BY SIMILARITY.
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EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
LAGOMORPHA; LEPORIDAE; ORYCTOLAGUS.
                                                                                                                                       Score 91; DB 1; Length 92;
Pred. No. 2.87e-08;
0; Mismatches 0; Indels
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                                                                                                                   10212 MW; F18E7AFD CRC32;
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Matches 12; Conservative
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    72 QVCADPSESWVQ 83
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                                                                                                                   92 AA;
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0; Indels Length 92;

Score 88; DB 1; L Pred. No. 1.53e-07; 1; Mismatches 0

Match 96.7%; Local Similarity 91.7%; les 11; Conservative

Query Match

Matches

72 OVCANPSESWVQ 83

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1 OVCADPSESWVQ 12

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -!- SIMILARITY: LD78-ALPHA AND -BETA ARE VERY CLOSELY RELATED.
                                          01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
01-0CT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA)
(TONSILLAR LYMPHOCYTE LD78 ALPHA PROTEIN) (GOS19-1 PROTEIN) (SIS-BETA)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOL. CELL. BIOL. 10:3646-3658(1990),
MOL. CELL. BIOL. 10:3646-3658(1990),
-i. FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
-i. INDUCTION: BY TPA OR PHA (TPA = 12-0-TETRADECANOYL PHORBOL-13
ACETATE (TUMOR PROMOTER); PHA = PHYTOHEMAGGLUTININ (T-CELL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Three human homologs of a murine gene encoding an inhibitor of stem
                                                                                                                                                                                                                                                                                                                                                                             ZIPFEL P.F., BALKE J., IRVING S.G., KELLY K., SIEBENLIST U.; "Mitogenic activation of human T cells induces two closely related genes which share structural similarities with a new family of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAKAO M., NOMIYAMA H., SHIMADA K.; "Structures of human genes coding for cytokine LD78 and their
                                                                                                                                                                                                                                                     OBARU K., FUKUDA M., MAEDA S., SHIMADA K.;
"A cDNA clone used to study mRNA inducible in human tonsillar
lymphocytes by a tumor promoter.";
J. BIOCHEM. 99:885-894(1986).
                                                                                                                                                                EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; i18; 1.
                                                                                                              (PAT 464.1) (SMALL INDUCIBLE CYTOKINE A3) SCYA3 OR MIP1A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        91103879.
FORSDYKE R.E., FORSDYKE D.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                    secreted factors.";
J. IMMUNOL. 142:1582-1590(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cell proliferation.";
DNA CELL BIOL. 9:589-602(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; X04018; G34297; ALT_SEQ.
EMBL; M23178; G182847; -.
EMBL; D90144; G219906; -.
                             01-MAR-1989 (REL. 10, CREATED)
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STANDARD;
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PIR; A30574; A30574.
                                                                                                                                                         HOMO SAPIENS (HUMAN).
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MI1A_HUMAN
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MOL. CELL. BÍOL. 10:3646-3658(1990).
-i- SIMILARITY: 464.1 AND 464.2 ARE VERY CLOSELY RELATED.
-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 91103879.
BLUM S., FORSDYKE D.R.;
BLUM human homologs of a murine gene encoding an inhibitor of stem "Three human homologs of a murine gene encoding an inhibitor of stem cell proliferation.";
                                     MACROTAGE INFLAMMATORY PROTEIN 1-ALPHA.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                        01-AUG-1990 (REL. 15, CREATED)
01-AUG-1990 (REL. 15, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
TONSILLAR LYMPHOCYTE LD78 BETA PROTEIN PRECURSOR (GOS19-2 PROTEIN)
(PAT 464.2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 90287702.
IRVING S.G., ZIPFEL P.F., BALKE J., MCBRIDE O.W., MORTON C.C.,
BURD P.R., SIEBENIST U., KELLY K.;
"Two inflammatory mediator cytokine genes are closely linked and
variably amplified on chromosome 17q.";
NUCLEIC ACIDS RES. 18:3261-3270(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NARRO M., NOMIYAMA H., SHIMADA K.; "Structures of human genes coding for cytokine LD78 and their
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERLA;
PRIMATES; CATARRHINI; HOMINIDAB; HOMO.
                                                                                                                                                   1; Indels
                                                                                                                  Length 92;
             INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                  Score 86; DB 1; Lk
Pred. No. 4.59e-07;
0; Mismatches 1;
                                                                                      C24DD919 CRC32;
                                                                                                                                                                                                                                                                            93 AA.
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                               POTENTIAL
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                                                                                          10085 MW;
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                                                                                                                       94.5%;
91.7%;
                                                                                                                                    Best Local Similarity 91.7%;
Matches 11; Conservative
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PIR; B35673; B35673.
PIR; S10157; S10157.
HSSP; P13236; 1HUN.
CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                     71 QVCADPSEEWVQ 82
                                                                                                                                                                                                                1 QVCADPSESWVO 12
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                                                                                           92 AA;
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MI10_HUMAN
P16619;
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MARAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;

MARAGAWA H., SHOTA S., TAKANO K., SHIBATA F., KATO H.;

T "Cytokine-induced neutrophil chemoattractant (CINC)-2 alpha, a novel

T "Cytokine-induced neutrophil chemoattractant chemokine produced by

T "Ippoplysaccharide-stimulated rat macrophages in culture.";

L BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).

C -!- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.

BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG TNF-ALPHA

PRODUCTION, NEUTROPHIL RECRUITEMENT AND SUBSCUENT LUNG INJURY AND

MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE

PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGUIATES VASCULAR

PHOBESION MOLECULES REQUIRED FOR NEUTROPHIL INFLUX. THIS PROTEIN
                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SHI M.W., GODIESKI J.J., PAULAUSKIS J.D.;
"Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar macrophages.";
BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SHANLEY T.P., SCHWAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
"Role of macrophage inflammatory protein-1 alpha (MIP-1 alpha) in
                                                                                                                                                                                                                                                                                                                                                                   01-0CT-1996 (REL. 34, CREATED)
01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
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RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                      LD78 BETA / GOS19-2 / 464.2.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                     1; Indels
                                                                                                                                                                 Score 86; DB 1; Length 93;
Pred. No. 4.59e-07;
                                                                                                                              21EDDB04 CRC32;
                                                                                                                                                                                                   0; Mismatches
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                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ite lung injury in rats.";
IMMUNOL. 154:4793-4802(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN=LONG EVANS; TISSUE=LUNG;
MEDLINE; 95238980.
                                 CYTOKINE; CHEMOTAXIS; SIGNAL.
                                                                                                                          10161 MW;
                                                                                                                                                              h 94.5%;
Similarity 91.7%;
11; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C-C) (CHEMOKINE CC).
PFAM; PF00048; i18; 1.
                                                                                                                                                                                                                                                 1 QVCADPSESWVQ 12
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                  HSSP; P13236; 1HUN
                                                                                                                       93 AA;
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MI1A_RAT
P50229;
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                                                                                                    MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
                                                                                                                                                                                                                         Gaps
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SIGNAL
23 BY SIMILARITY.
CHAIN 24 92 MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
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01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-0CT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA).
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                                                                                                                                                                                                                                                                                                                                                                                                     RATTUS NORVEGICUS (RAT).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
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0
                                                                                                                                                                                                                     1; Indels
                                                                                                                                                                                          Score 82; DB 1; Length 92; Pred. No. 4.04e-06; 2; Mismatches 1; Indels
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Pred. No. 2.01e-05;
2; Mismatches 0; Indels
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C -> W (IN REF. 2 AND 3).
F48CF89F CRC32;
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BY SIMILARITY.
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        EMBL; U22414; G790633; -.
EMBL; U06435; G459150; -.
PROSITE; PS00042; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P13236; 1HUN;
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PFAM; PF00048; 118; 1.
HSSP; P13236; 1HUN.
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92 N
57 E
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6 A
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10335 MW;
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Best Local Similarity 75.0%;
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| QVCADPSESWVQ 12
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                                                                                                                                                             92 AA;
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ID MI1B_RAT
                                                                                                                                                              SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                           -i- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (H400
PROTEIN) (SIS-GAMMA) (ACT2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                               "cDNA cloning of guinea pig monocyte chemoattractant protein-1 and expression of the recombinant protein."; J. IMMUNOL. 150:5025-5032(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SHERRY B., TEKAMP-OLSON P., GALLEGOS C., BAUER D., DAVATELIS G.,
                                                                                                                                                                                                                                                                                                                                                                                        -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MUS MUSCUUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                           EUKARYOTA; METAZÒA; CHORDATÁ; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; HYSTRICOGNATHI; CAVIIDAE; CAVIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID (BY
                                                               UL-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOFATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
GRMOAPTRACTANT PROTEIN-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 77; DB 1; Length 120; Pred. No. 5.79e-05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22FAD257 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BY SIMILARITY.
BY SIMILARITY.
                          120 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
PPAM; PF00048; 118; 1.
HSSP; P80098; 1NCV.
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                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JAN-1990 (REL. 13, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13741 MW;
                                                                                                                                                          SCYA2 OR MCP1.
CAVIA PORCELLUS (GUINEA PIG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; L04985; G349821; -.
                                                                                                                                                                                                                                                                             STRAIN=Z; TISSUE=SPLEEN; MEDLINE; 93267104.
                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23
120
24
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34
97
120 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                       NEUTROPHILS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MI1B_MOUSE
                                                                                                                                                                                                                                                                                                                      TOSHIMURA T
                              MCP1_CAVPO
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P10855; P14096;
01-JUL-1989 (REL. 11, CREATED)
01-APR-1990 (REL. 37, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST NNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA) (TY-5)
(SIS-ALPHA) (HEPARIN-BINDING CHEMOTAXIS PROTEIN) (L2G25B).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -:- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
-:- SUBGNIT: HOMODIMER (BY SIMILARITY).
-:- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
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WOLPE S.D., MASIARZ F., COIT D., CERAMI A.; "Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta."; J. EXP. MED. 168:2251-2259(1988).
                                                                                                                                                                                                                                                                  BROWN K.D., ZURRAKEI S.M., MOSMANN T.R., ZURRAWSKI G.;
"A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, and indicators of various activation processes.";
J. IMMUNOL. 142:679-687(1989).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
STRAIN-DBA/2J; TISSUE-LIVER;
DAUBERSIES P., LEPRETRE F., BAILLEUL B., GROVE M., PRAGNELL I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ČCYAJ OR MÍPJA.
MUS MUSCUUGS (MOUSE).
EUKRAYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODEWITA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 76; DB 1; Length 92;
Pred. No. 9.78e-05;
3; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBMITTED (OCT-1991) TO EMBL/GENBANK/DDBJ DATA BANKS.
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BY SIMILARITY.

A -> P (IN REF. 1).

C -> Q (IN REF. 1).

D -> H (IN REF. 1).
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EMBL, M35590; G199697; --
EMBL; X62502; G53127; --
PIR; C30552; C30552.
PIR; JL0088; JL0088;
MGD; MGI:98261; SCYA4.
PROSITE; PSO0472; SMALL_CYTOKINES_CC; 1.
PPAM; PF00048; il8; 1.
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1 QVCADPSESWV 11
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Matches 8; Conser
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                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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-!- TISSUE SPECIFICITY: EXPRESSED IN LUNG, SPLEEN, AND PANCREAS.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WOLPE S.D., DAVATELIS G., SHERRY B., BEUTLER B., HESSE D.G.,
NGUYEN H.T., MOLDAWER L.L., NATHAN C.F., LOWRY S.F., CERAMI A.;
"Macrophages secrete a novel heparin-binding protein with
inflammatory and neutrophil chemokinetic properties.";
J. EXP. MED. 167:570-581(1988).
-: FUNCTION: MONOKINE WITH INFLAMMATORY, PYROGENIC AND CHEMOKINETIC
PROPERTIES. HAS A POTENT CHEMOTACTIC ACTIVITY FOR EOSINOPHILS.
BINDING TO A HIGH-AFFINITY RECEPTOR ACTIVITY FOR EOSINOPHILS.
                                                                                                                                                                                                                                                                                                                                          "cDNA sequences of two inducible T-cell genes";
PROC. NATL. ACAD. SCI. U.S.A. 86:1963-1967(1989)
                                                                                                                                                                                                                                                                                  inflammatory protein 1 alpha gene";
NUCLEIC ACIDS RES. 18:5561-5561(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                       IMMUNOL. 146:4031-4040(1991).
                                                                                                                                                                                                                                                                                                                               KWON B.S., WEISSMAN S.M.;
         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                            STRAIN-DBA/2J;
MEDLINE; 91016858.
                                                                                                                                             SEQUENCE FROM N.A.
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                    88258380
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SEQUENCE OF 24-42.
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                                                                                                        DAVATELIS G.,
GALLEGOS C., C
                                                                                              REVISIONS.
                                                                                                                                                         MEDLINE;
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                                                                                                                                                                                                                                                                                                                         MEDLINE;
                                                                                                                                                                                                                                                                GROVE M
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"Genomic structure of murine macrophage inflammatory protein-1 alpha and conservation of potential regulatory sequences with a human homolog, LD78.";
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DAVATELIS G., TEKAMP-OLSON P., WOLPE S.D., HERMSEN K., LUEDKE C., GALLEGOS C., COIT D., MERRYWEATHER J., CERAMI A.;
"Cloning and characterization of a CDNA for murine macrophage inflammatory protein (MIP), a novel monokine with inflammatory properties.";
Chemokinetic properties.";
J. EXP. MED. 167:1939-1944(1988).
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                                                                                                                                                                                                                                                                                                                      VATELIS G., TEKAMP-OLSON P., WOLPE S.D., HERMSEN K., LUEDKE C.,
LLEGOS C., COIT D., MERRYWEATHER J., CERAMI A.;
EXP. MED. 170:2189-2189(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived infilammatory agents, growth factors, and indicators of various activation processes.";
J. IMMUNOL. 142:679-687(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 91237116.
WIDMER U., YANG Z., VAN DEVENTER S., MANOGUE K.R., SHERRY B.,
CERAMI A.;
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                                                                                                                                                                                                                                                                                                         MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
LAVIGNE F., HAMID Q., MURPHY P.M., LUSTER A.D.;
"Human monocyte chemoattractant protein (MCP)-4 is a novel CC
chemokine with activities on monocytes, eosinophils, and basophils
induced in allergic and nonallergic inflammation that signals through
                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
CHEMOATTRACTANT PROTEIN 4) (CK-BETAIO) (NCC-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                       Length 92;
                                                                                                                                                                                                                                                                                  INFLAMMATORY RESPONSE; SIGNAL
                                                                                                                                                                                                                                                                                                                                                  F -> L (IN REF. 3).
V -> A (IN REF. 3).
53979E5E CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. 1.65e-04;
3; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                    Score 75; DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CC chemokine receptors (CCR)-2 and -3.";
IMMUNOL. 157:5613-5626(1996).
                                                                                                                                                       PIR: A27596; A27596.
PIR: A30552; A30552.
PIR: A30553; A30552.
PIR: S04533; S04533.
PIR: S11685; S11685.
MGD: MGI: 9804072; SMALL_CYTOKINES_CC; 1.
PRAN: PF00048; i.18; 1.
                                                                                                                                                                                                                                                                                                                         BY SIMILARITY BY SIMILARITY
or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQI
                                                                                                                                                                                                                                                                                                                                                            62
10345 MW;
                                    EMBL; X12531; G53123;
EMBL; X53372; G297531;
EMBL; J04491; G201525;
EMBL; A73061; G199695;
EMBL; AF065939; G3158440;
EMBL; AF065940; G3158440;
                                                                                                                                                                                                                                                                                                                                                                                                    82.48;
                       EMBL; M23447; G533241; -.
                                                                                                                  AF065941; G3158444;
AF065942; G3158446;
AF065943; G3158448;
                                                                                                                                                                                                                                                                                                                                                                                                                larity 66.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SCYA13 OR MCP4 OR NCC1.
                                                                                                                                                                                                                                                                              CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  71 QICADSKETWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 QVCADPSESWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HOMO SAPIENS (HUMAN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EUKARYOTA; METAZOA;
                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                        92 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97113354.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-FETAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MCP4_HUMAN
                                                                                                                                                                                                                                                                                                                                           CONFLICT
CONFLICT
SEQUENCE
                                                                                                                                                                                                                                                                                                                   DISULFID
                                                                                                                                                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE;
                                                                                                                                                                                                                                                                                           SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            099616;
                                                                                                                    EMBL:
                                                                                                                                                                                                                                                                                                       CHAIN
                                                                                                                                  EMBL;
                                                                                                                                               EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
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this SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the European Bioinformatics Institute. There are no restrictions on its way non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND (FUNDGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE. (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4. SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                              POWER C.A., MEYER A., RISON S.C.G., GUYE-COULIN F., WELLS T.N.C.;
SUBMITTED (DEC-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: CHENGATACTIC FACTOR THAT ATTRACTE NONOCYTES, LYMPHOCYTES,
-EDASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLEGRIC INFLAMMATION.
MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
WALL DUBING THE DISBASE PROCESS OF ARTHEROSCLEROSIS. MAY PLAY A
ROLL IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MASS SPECTROMETRY: MW-9314; MW_ERR=30; METHOD=MALDI; RANGE=17-98.
MASS SPECTROMETRY: MW-8760; MW_ERR=30; METHOD=MALDI; RANGE=22-98.
MASS SPECTROMETRY: MW-8775; MW_ERR=30; METHOD=MALDI; RANGE=24-98.
INDUCTION: BY INTERLEUKIN-1 AND THE-ALPHA.
TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE, THYMOS, COLON, UND, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS SEEN IN THE PULMONARY RATERY SMOOTH MUSCLE CELLS.
          MEDITION, 97341179.

BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBACY N., APPELBAUM E., REMPE T.J., BRAWNER M., MAKWANA J., FOLEY J.J.,
APPELBAUM E. S., RHBURGIA C., MACNULLY D., MATTHEWS J., O'DONNELL K.,
O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.,
"Cloning, in vitro expression, and functional characterization of a novel human CC chemokine of the monocyte chemotactic protein (MCP) family (MCP-4) that binds and signals through the CC chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MONOCYTE CHEMOTACTIC PROTEIN 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 75; DB 1; Length 98;
Pred. No. 1.65e-04;
2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PYRROLIDONE CARBOXYLIC ACID.
                                                                                                                                                                                                                                                   DANTE M., GIBSON A.;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL.
DF52F6EC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PS00472; SMALL_CYTOKINES_CC; 1
                                                                                                                                                                                          BIOL. CHEM. 272:16404-16413(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10986 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AC002482; G2340091; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    82.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; U46767; G1732123; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; X98306; E248571; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EXOGENOUS PATHOGENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C-C) (CHEMOKINE CC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PFAM; PF00048; 118; 1.
HSSP; P13500; 1DOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98 AA;
                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
TISSUE-FETAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601391
                                                                                                                                                                             receptor 2B.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE;
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-:- PTM: O-GLYCOSTLATED.
-:- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VAN DAMME J., PROOST P., LENAERTS J.-P., OPDEDNAKKER G.; "Structural and functional identification of two human, tumor-derived monocyte chemotactic proteins (MCP-2 and MCP-3) belonging to the chemokine family.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BIOCHEMISTRY 36:4412-4422(1997).
BIOCHEMISTRY 36:4412-4422(1997).
FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND
FOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
ACTIVITY, ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUZUN P., MAGAZIN M., MILOUX B., MINTY C., RAMOND P., VITA N., LUPKER J., SHIRE D., FERRARA P., CAPUT D.; "Molecular cloning of the MCP-3 chemokine gene and regulation of its expression.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.;
"Determination of the three-dimensional structure of CC chemokine
                                                                                                                                                                                                                                                                                                                                                                        OPDENARKER G., FITEN P., NYS G., FROYEN G., VAN ROY N., SPELEMAN F.,
LAUREYS G., VAN DAMME J.;
                                                                                                                                                                                                                                                 OPDENAKKER G., FROYEN G., FITEN P., PROOST P., VAN DAMME J.;
"Human monocyte chemotactic protein-3 (MCP-3): molecular cloning of
the cDNA and comparison with other chemokines.";
BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.; "Structural characterization of a monomeric chemokine: monocyte
                                                                                                                                                                                                                                                                                                                                                                                                           "The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        monocyte chemoattractant protein 3 by 1H two-dimensional NMR
                                                                                                                                                            EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                               01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE
CHEMOATTRACTANT PROTEIN 3) (NC28).
                                                                                                                                                                                                               SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.
       99 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EUR. CYTOKINE NETW. 4:99-110(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRUCTURE BY NMR, AND SUBUNIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           chemoattractant protein-3.";
FEBS LETT. 395:277-282(1996).
                                            01-DEC-1992 (REL. 24, CREATED)
01-NOV-1995 (REL. 32, LAST SEQI
15-JUL-1998 (REL. 36, LAST ANN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EXP. MED. 176:59-65(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENOMICS 21:403-408(1994).
              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          - ! - SUBUNIT: MONOMER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE-OSTEOSARCOMA;
MEDLINE; 92308855.
                                                                                                                                                     HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE; 93305913.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97263733
                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 30-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 97053697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRUCTURE BY NMR.
                                                                                                                                                                                                                                         93213290
                                                                                                                                                                                                                                                                                                                                                               94375065
                                                                                                                                    OR MCP3
            MCP3_HUMAN
P80098;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This
11
RESULT
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Gaps

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66.78;

Best Local Similarity

Matches

8; Conservative

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SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      U1-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC)
ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.

TISSUE-AORTA, AND LUNG;

MEDLINE; 97376836.

HEISHIMA K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K.,

NAKAGANA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,

MUNKA R., OPENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;

"A novel human CC chemokine PARC that is most homologous to
macrophage-inflammatory protein-1 alpha/LD78 alpha and chemotactic
for I lymphocytes, but not for monocytes.";
J. IMMUNOL. 159:1140-1149(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OU40; 115; 1. CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MONOCYTE CHEMOTACTIC PROTEIN 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PYRROLIDONE CARBOXYLIC ACID.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POTENTIAL.

T -> K (IN REF. 4).

MISSING (IN REF. 4).

7502E19C CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         89 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Macrophage inflammatory protein-3 and -4.";
PATENT NUMBER US5504003, 02-APR-1996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY. SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                           EMBL; X72309; -; NOT_ANNOTATED_CDS.
EMBL; X71087; G2283399; -.
EMBL; X71087; G228399; ALT_INIT.
EMBL; X71087; G228397; ALT_INIT.
PIR; S32222; S32222.
PIR; A54678; A54678.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 75;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFLAMMATORY RESPONSE; 3D-STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                        EMBL; X72308; G313708; ALT_INIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1997 (REL. 35, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11200 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            82.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      larity 58.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                         15-0CT-97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PFAM; PF00048; i18; CYTOKINE; CHEMOTAXIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73 EICADPTQKWVQ 84
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P55774;
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                        MEDLINE; 97275308.

WELLS T. N.C., PEITSCH M.C.;
Characterization of novel Chemokines using the Worldwideweb and expressed sequence tag databases."

J. LEUKC. BLOD. 61:545-550(1997).

I. LEUKC. BLOD. 61:5750(1997).

INTO B CELL FOLICIES IN LYMPH NODES.

INTO B CELL FOLICIES IN LYMPH NODES.

INTO B CELL FOLICIES IN LYMPH NODES.

INTO B CELL FOLICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES.

THENCE AND APPENDIX.
                                                                                                                                                                                                                              -!- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MACROPHAGE INFLAMMATORY PROTEIN 4. BY SIMILARITY. BY SIMILARITY. 052AA3DC CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
SCYA14 OR NCC2.
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TISSUE-BONE MARROW;
MEDLINE; 96136773.
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PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
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66.7%;
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              DISCUSSION OF SEQUENCE.
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| QVCADPSESWVQ 12
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Q16627;
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Best Local Similarity
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                                                                TISSUE-PLACEARIA N.A.

TARGERA A. MAGGERT H.-J., CIESLAK A., HILL O., SCHULZ-KNAPPE P.,

PARDICOL A., MAGGERT H.-J., CIESLAK A., HILL O., SCHULZ-KNAPPE P.,

PORSSAANN W.-G. 1995) TO EMBL/GENBANK/DDBJ DATA BANKS.

IL SUMPLITUD (OCT-1995) TO EMBL/GENBANK/DDBJ DATA BANKS.

INTRACELLULAR KAZY CATIVITIES ON HUMAN MONOCYTES AND ACTS VIA

RECEPTORS THAT ALSO RECOGNIZE MIP-1 ALPHA. IT INDUCED

INTRACELLULAR CA2+ CHANGES AND ENZYME RELEASE, BUT NO CHEMOTAXIS,

AT CONCENTRATIONS OF 100-1,000 NM, AND WAS INACTIVE ON T

INTRACELLULAR TONS OF 100-1,000 NM, AND WAS INACTIVE ON T

INTRACES. SPLEBAL INTERNATIONS CELLS.

C.I. TISSUE SPECIFICITY: EXPRESED CONSTITUTIVELY IN SEVERAL NORMAL

TISSUES: SPLEBEN, INTER, SKELETAL AND HEATH MOSCLE, GUT, AND BONE

MARROW, PRESENT AT HIGH CONCENTRATIONS (1-80 NM) IN PLASMA.

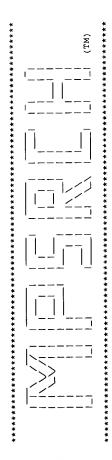
C.-S. (CHEMOKINE CC).
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
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15-UTL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Indels
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      SUBMITTED (MAY-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
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Pred. No. 4.63e-04;
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A3E7BCAD CRC32;
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ilarity 63.6%;
Conservative
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P49873;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PARDIGOL A., MAEGERT H.-J., ZUCHT H.D., FORSSMANN W.-G., SCHULZ-KNAPPE P.; SCHULZ-KNAPPE P.; SUBMITTED (MAY-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                            SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                          BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 2.
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 73; DB 1; Length 109; Pred. No. 4.63e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POTENTIAL.
CHEMOKINE CC-3.
BY SIMILARITY.
BY SIMILARITY.
i 9AE90F93 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 73; DB 1; L
Pred. No. 4.63e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BY SIMILARITY.
BY SIMILARITY.
B7620BCF CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
CHEMOKINE CC-3 PRECURSOR (HCC-3).
HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            109 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PSO0472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; 118; 1. HSSP; P13236; 1HUN.
                                                                                                                                                                                                                                                  or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                    PROSITE; PSO0472; SMALL_CYTOKINES_CC; 1.
PFAM; PP00048; 118; 1.
HSSP; P80098; 1NCV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2 PO
109 CH
75 BX
91 BX
12297 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99 AA; 10903 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         80.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ouery Match 80.2%;
Best Local Similarity 66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; Z70293; E233858; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                       EMBL; Z48480; G683719; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                          CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73 EVCADPQQKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 QVCADPSESWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       109 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CYTOKINE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IISSUE=LIVER;
```

Matches 7; Conservative 3; Mismatches 1; Indels 0; Gaps 0;

90 VCTNPSDKWVQ 100 ||::||: ||| 2 VCADPSESWVQ 12 δŽ

Search completed: Fri Feb 4 17:27:51 2000 Job time : 6 secs.



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protein - protein database search, using Smith-Waterman algorithm MPsrch_pp

Fri Feb 4 17:27:12 2000; MasPar time 3.58 Seconds 134.363 Million cell updates/sec Tabular output not generated.

Run on:

>US-09-150-813-43 (1-12) from US09150813.pep 91 1 QVCADPSESWVQ 12 Description: Perfect Score:

Sequence:

PAM 150 Gap 15 Scoring table:

122810 seqs, 40068593 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

Mean 24.455; Variance 36.695; scale 0.666 pir60 1:pirl 2:pir2 3:pir3 4:pir4 Statistics: Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Pred. No.	4.73e-07	4.73e-07	2.11e-06	5.68e-06	5.68e-06	4.01e-05	4.39e-04	7.04e - 04	1.13e - 03	1.13e - 03	1.80e-03	2.85e-03	4.53e-03	7.16e-03	7.16e-03	7.16e-03	1.13e - 02	1.13e-02	1.13e-02	1.13e-02	1.13e-02	1.13e-02	1.13e-02
Description	monocyte adherence-in	macrophage inflammato	immune activation gen	macrophage inflammato	LD78-beta protein pre	macrophage inflammato	monocyte chemoattract	macrophage inflammato	macrophage inflammato	monocyte chemotactic	lymphocyte and monocy	monocyte chemoattract	monocyte chemoattract	monocyte chemoattract	monocyte chemotactic	monocyte chemoattract	interleukin-8 - dog	interleukin-8 - sheep	interleukin 8 - sheep	interleukin-8 precurs	alveolar macrophage c	PDGF-inducible JE gly	immediate-early serum
A	C60407	A31767	146730	A30574	B35673	152322	148147	C30552	A32393	A54678	JE0177	JC2417	A60299	A46539	JC5295	JC2136	JN0841	146997	S42496	A53096	A44253	A30209	S07723
DB	7	Н	7	~	~	N	7	7	7	~	7	7	7	Н	7	7	7	7	~	~	7	7	~
% Query Match Length	20	92	92	92	93	92	120	92	92	109	120	66	66	91	66	66	95	101	101	103	103	148	148
% Query Match	100.0	100.0	7.96	94.5	94.5	90.1	84.6	83.5	82.4	82.4	81.3	80.2	79.1	78.0	78.0	78.0	76.9	76.9	76.9	76.9	76.9	76.9	76.9
Score	91	91	88	86	86	82	77	16	75	75	74	73	72	71	71	71	70	70	70	70	70	70	70
Result No.	П	7	m	4	Ŋ	9	7	00	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23

1.78e-02 1.78e-02	1.78e-02 1.78e-02	2.79e-02	2.79e-02	6.79e - 02	6.79e-02	1.05e-01	1.05e-01	1.05e-01	1.63e-01	1.63e - 01	2.52e-01	2.52e-01	2.52e-01	2.52e-01	5.93e - 01	1.38e+00	2.08e+00	3.14e+00	3.14e+00
transformation-induce RSV-induced protein -	gene C10 protein - mo monocyte chemoattract	monocyte chemoattract	monocyte chemoattract	eotaxin precursor - h	interleukin-8 precurs	monocyte chemoattract	eotaxin precursor - r	eotaxin precursor - g	interleukin-8 - rabbi	lymphotactin precurso	interleukin-8 homolog	pre-B-cell growth-sti	cytokine - mouse	cytokine SDF-1-beta -	Neutrophil attractant	lymphotactin precurso	lrp protein - human	hypothetical protein	brain-specific serine
A26736 I50417	149555 146857	A39296	JC2336	JC4912	A37034	A28815	JC2478	148099	146871	ETHUL	153416	A53497	181182	G01540	148148	ETMSL	S57723	C70545	JC5759
0.0	7 0	(7)	7	~	~	Н	~	~	7	,-	7	7	~	7	~	<b>~</b>	~	~	7
103	116 125	66	66	97	66	91	96	96	101	114	83	68	69	69	101	114	896	529	761
ω ω	ω α	· -	7	Ŋ	2	4	4	4	m	m	7	7	7	7	0	α,	7	٠	و
75.	75.	7.4	74.	72.5	72.5	71.4	71.	71.4	70.3	70.3	69	69.2	69.2	69	67.0	64	9	62.6	62
69 69	6 g	89	89	99	99	65	65	65	64	64	63	63	63	63	19	50	000	57	57
24 25	26	28	29	30	31	32	33	34	35	36	37	30	39	4	4.1	4.2	4.4	44	45

### ALIGNMENTS

c60407 #type fragment monocyte adherence-induced protein 5 beta - human (fragment) #formal_name Homo sapiens #common_name man 06.Nov-1992 #sequence_revision 06.Nov-1992 #text_change 03.May-1996 C60407 A60407 Soorn, S.A.; Eierman, D.F.; Johnson, C.E.; Morris, J.; Martin, G.; Ladner, M.; Haskill, S.	ren le-	Match 100.0%; Score 91; DB 2; Length 50; Local Similarity 100.0%; Pred. No. 4.73e-07; es 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0; 30 QVCADPSESWVQ 41		07-Jun-1990 #sequence_revision 29-May-1998 #text_change 29-May-1998 May-1998 A31767; A37411; B30574; B45817; D30552 JH0319; A40978; A31767; A37411; B30574; B45817; D30552 JH0319
RESULT 1 ENTRY TITLE ORGANISM DATE ACCESSIONS REFERENCE #authors	#journal #title #cross-refere #accession #status ##status ##molecule ##molecule ##residues CLASSIFICATION SUMMARY	Query Match Best Local S Matches 1  Db 30 QVCA	RESULT 2 ENTRY TITLE ALTERNATE_NAMES ORCANISM	DATE ACCESSIONS REFERENCE #authors

```
#authors Chang, H.C.; Reinherz, E.L.
#journal Eur. J. Immunol. (1989) 19:1045-1051
Eur. J. Immunol. (1989) 19:1045-1051
Stockine which is induced by stimulation via the CD2
structure on human T lymphocytes.
#cross-references MUID:89325421
#accession A37411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G. J. Immunol. (1989) 142:679-687
A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors,
                                                                                                                                                                         ##residues 1-92 ##label BAI
##cross-references GB:X53682; NID:g34217; PID:g34218
##experimental_source natural killer cell, strain CD3-CD2+, F5, 5IIIE5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       #journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:9704-9708
#title Identification, cloning, and characterization of an immune activation gene.
#cross-references_WID:89071764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            #journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely related genes which share structural similarities with a new family of secreted factors.
#cross-references MUID:89140347
                                                                                                                                                                                                                                                                                                       #authors Napolitano, M.; Modi, W.S.; Cevario, S.J.; Gnarra, J.R.; Seuanez, H.N.; Leonard, W.J.
#journal J. Biol. Chem. (1991) 266:17531-17536
#title The gene encoding the Act-2 cytokine. Genomic structure, HTLV-I/tax responsiveness of 5' upstream sequences, and chromosomal localization.
#cross-references MID:91373378
#accession A40978
Mol. Immunol. (1990) 27:1091-1102
Cloning and expression of a lymphocyte activation gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lipes, M.A.; Napolitano, M.; Jeang, K.T.; Chang, N.T.;
Leonard, W.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Miller, M.D.; Hata, S.; Malefyt, R.D.W.; Krangel, M.S.
J. Immunol. (1989) 143:2907-2916
A novel polypeptide secreted by activated human T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #accession A31767
##molecule_type mRNA
##residues 1-92 ##label LIP
##cross-references GB:J04130; NID:g178017; PID:g178018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ##residues 1-19,'L',21-92 ##label ZIP
##cross-references GB:M25316; NID:g602454; PID:g602455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ##residues 7-55,'I',57-79,'T',81-92 ##label MIL ##cross-references GB:M57503; NID:9339726; PID:9339727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ##residues 1-92 ##label CHA
##cross-references GB:X16166; NID:g32035; PID:g32036
                                                                                                                                         translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-Ala was also found
                                                                                 #cross-references MUID:91061800
#accession JH0319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             lymphocytes.
#cross-references MUID:90038522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ##molecule_type mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ##molecule_type mRNA
                                                             (LAG-1)
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                                                                                                                                                                      ##molecule_type DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ##molecule_type DNA
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                                                                                                                                         #status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ##note
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#journal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           #authors
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This protein is secreted by activated lymphocytes and monocytes. It is bound by chemckine (C.) receptor 5 (see PIR:A43113) and receptor 1 (see PIR:A43177).
                                                                                                                                                                                                                                                                                                                                                                                                                                                  #title Dynamic changes in mRNA expression of neutrophils during the course of acute inflammation in rabbits.
                                                                                                                                   #authors Clore, G.M.; Lodi, P.J.; Garrett, D.S.; Gronenborn, A.M.
#submission submitted to the Brookhaven Protein Data Bank, January 1994
#cross-references PDB:1HUM
                                                                                                                                                                                                 annotation; conformation and disulfide bond assignments by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mori, S.; Goto, K.; Goto, F.; Mutakami, K.; Ohkawara, S.;
Yoshinaga, M.
Int. Immunol. (1994) 6:149-156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A30574 #type complete
macrophage inflammatory protein 1-alpha precursor - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #formal_name Oryctolagus cuniculus #common_name domestic
rabbit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ##cross-references GB:D17402; NID:9599577; PID:9599578
FICATION #superfamily macrophage inflammatory protein
# length 92 #molecular-weight 10066 #checksum 5637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
and indicators of various activation processes. #cross-references MUID:89093958 #accession D3055.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ##status preliminary; translated from GB/EMBL/DDBJ#molecule_type mRNA ##molecule_type mRNA
                                                                                                                                                                                                                                                                                                                                                                                              *superfamily macrophage inflammatory protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Indels
                                                 ##molecule_type mRNA
##residues 1-39,'REASS',46-92 ##label BRO
##cross-references GB:M23502; NID:9533212; PID:9533213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 91; DB 1; Length 92; Pred. No. 4.73e-07; 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. 2.11e-06;
1; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                 chemotaxis; cytokine; inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         immune activation gene 2 - rabbit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 88; DB 2;
                                                                                                                                                                                                                                                                                                                                   ##cross-references GDB:127451; OMIM:153335
#map_position 17q21-17q21
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#length 92 #molecular-weight 10085 #checksum 4316
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J. Biochem. (1986) 99:885-894
A cDNA clone used to study mRNA inducible in human tonsillar
lymphocytes by a tumor promoter.
                                                                                                                                                                   Nakao, M.; Nomiyama, H.; Shimada, K.
Mol. Cell. Biol. (1990) 10:3646-3658
Structures of human genes coding for cytokine LD78 and their
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        #authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal Phree human homologs of a murine gene encoding an inhibitor of stem cell proliferation.
#cross-references MUID:91103879
LD78-alpha protein precursor; lymphocyte tumor promoter induced protein; macrophage inflammatory protein homolog GOS19-1; MIP-lalpha; pAT464; small inducible cytokine A3; T-cell activation protein 1 #formal_name Homo sapiens #common_name man 03-Aug-1992, *sequence_revision 03-Aug-1992, *sequence_revision 03-Aug-1992 #text_change
                                                                                                                                                                                                                                                                                                                                                     #journal J. Immunol (1989) 142:1582-1590
#fitle Mitogenic activation of human T cells induces two closely related genes which share structural similarities with a mow family of secreted factors.
#access.references MUID:89140347
#accession A30574
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#map_position 17q11-17q21
CLASSIFICATION #superfamily macrophage inflammatory protein
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LD78-beta protein precursor - human
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#authors Irving, S.G.; Zipfel, P.F.; Balke, J.; McBride, O.W.; Morton, C.C.; Burd, P.R.; Siebenlist, U.; Kelly, K.
#journal Nucleic Acids Res. (1990) 18:3261-3770
#title Two inflammatory mediator cytokine genes are closely linked and variably amplified on chromosome 17q.
#cross-references MuID:90287702
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#product LD78-beta protein #status predicted #label MAT
#length 93 #molecular-weight 10161 #checksum 7784
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                                                                                                                                                                                                                                             Nakao, M.; Nomiyama, H.; Shimada, K.
Mol. Cell. Biol. (1990) 10:3646-3658
Structures of human genes coding for cytokine LD78 and their
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#cross-references GB:D90145; NID:g219907; PID:d1014876; PID:g219908
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macrophage inflammatory protein-lalpha - rat
#formal_name Rattus norvegicus #common_name Norway rat
29-May-1998 #sequence_revision 29-May-1998 #text_change
macrophage inflammatory protein homolog GOS19-2; small inducible cytokine A4 #formal_name Homo sapiens #common_name man 28-Sep-1990 #sequence_revision 28-Sep-1990 #text_change
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Pred. No. 5.68e-06;
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#map_position 17q11-17q21
#introns 26/1; 64/2
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##molecule_type DNA
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cDNA cloning of guinea pig monocyte chemoattractant protein-1 and expression of the recombinant protein.
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#title A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, #cross-references MuID:89093958

#cross-references MuID:89093958
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macrophage inflammatory protein 1-beta precursor - mouse
H400: SIS gamma: T-cell activation protein gamma
#formal_name Mus musculus #common_name house mouse
28-Aug-1989 #sequence_revision 28-Aug-1989 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                       Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar
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#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
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                                                                                                                                                                                                                                                                                   ##Tesidues ##1022 ##label RES ##10532; PID:9790633 ##105310N #superfamily macrophage inflammatory protein #length 92 #molecular-weight 10335 #checksum 3184
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       Biochem. Biophys. Res. Commun. (1995) 211:289-295
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                                                                                                                                                                             ##molecule_type mRNA
##msoldues | 1-92 ##1-1-13 | 1-92 ##1-1-13 | 1-92 ##1-1-13 | 1-92 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-1-13 | 1-93 ##1-13 | 1-93 ##1-13 | 1-93 ##1-13 | 1-93 ##1-13 | 1-93 ##1-13 | 1-93 ##1-13 | 1-93 ##1-13 | 1-93 ##1-13 | 1-93 ##1-13 | 1-93 ##1-13 | 
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Pred. No. 4.39e-04;
3; Mismatches 1; Indels
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#length 120 #molecular-weight 13741 #check
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2; Mismatches 1
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J. Immunol. (1993) 150:5025-5032
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#accession C3UJJZ
##molecule_type mRNA
##molecule_type nRNA
1-92 ##label BRO
                                                                                                                  macrophages.
#cross-references MUID:95298037
#accession 152322
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Similarity 75.0%;
9; Conservative
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Best Local Similarity 66.7%;
Matches 8; Conservative
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#title Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.
                                                   Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
Davatelis, G.; Wolpe, S.D.; Masiarz, F.; Coit, D.; Cerami,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 #domain signal sequence #status predicted #label SIG\
#product macrophage inflammatory protein 1-beta #status
experimental #label MAT\
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                                                                                                                                                                                                                                                                                                                                                                                                                                  #authors Daubersies, P.; Lepretre, F.; Bailleul, B.; Grove, M.; Pragnell, I.; Plumb, M. #submission submitted to the EMBL Data Library, October 1991 #description Sequence of the murine macrophage inflammatory protein 1b
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macrophage inflammatory protein-1-alpha precursor - mouse
macrophage inflammatory protein; L2625B protein;
SCI/MIP-1a, SIS alpha; stem cell inhibitory/macrophage
inflammatory protein 1-alpha; T-cell activation protein
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#journal Nucleic Acids Res. (1990) 18:5561
#title Sequence of the murine haemopoietic stem cell inhitor/macrophage inflammatory protein 1-alpha gene.
#cross:references MUID:91016858
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##residues 1-92 ##label GRO
##cross-references EMBL:X53372; NID:954062; PID:9297531
##note the authors' translation of the nucleotide sequence
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17.Jul-1992_#sequence_revision 17.Jul-1992 #text_change
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#length 92 #molecular-weight 10168 #checksum 7516
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Pred. No. 7.04e-04;
3; Mismatches 0; Indels
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#superfamily macrophage inflammatory protein
##cross-references GB:M23503; NID:g533244; PID:g533245
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##residues 1-92 ##label SHE
##cross_references GB:M35590; NID:q199696; PID:q199697
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##molecule_type protein
#*reatilues 24-33,'XX',36,'X',38 ##label SH2
                                                                                                                             (1988) 168:2251-2259
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Best Local Similarity 72.7%;
Matches 8; Conservative
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#journal J. Exp. Med. (1988) 168:2251-2259
#title Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.
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#journal J. Immunol. (1989) 142:679-687
#title A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, #cross-references MUID:89093958
#accession A30552
                                                                                                                                                                                                                                                                                                                                                                                            #journal J. Exp. Med. (1988) 167:1939-1944

#title Cloning and characterization of a cDNA for murine macrophage inflammatory protein (MIP), a novel monokine with inflammatory and chemokinetic properties.

#cross-references_MUID:88258380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.; Davatelis, G.; Wolpe, S.D.; Maslarz, F.; Coit, D.; Cerami,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ##ccession S04535
##molecule_type mRNA
##residues 1.48,'E',50-90,'I',92 ##label DA2
##residues 1.48,'E',50-90,'I',92 ##label DA2
##residues the manual translated the codon GAG for residue 49 as
##note the authors translated the codon GAG for residue 49 as
##note Asp and ATT for residue 91 as Asn
Asp and ATT for residue 91 as Asn
##note the sequence has been corrected in reference A53885
##note SOD, Hermsen, K.;
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differs at several positions from the sequence given
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#title Macrophages secrete a novel heparin-binding protein with inflammatory and neutrophil chemokinetic properties.
#arcoss_references_MUID:88154745
                                                         Kwon, B.S.; Weissman, S.M.
Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
cDNA sequence of two inducible T-cell genes.
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##residues 24-33,'XX',36-42 ##label WOL
##residues 26-Met, 30-Pro, and 39-Thr were also found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ##residues 1.21,'L',23-61,'A',63-92 ##label BRO ##cross-references GB:M23447; NID:9533240; PID:9533241
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                                                                                                                                                                                                                           ##residues 1-92 ##label KWO
##cross-references GB:J04491; NID:g201524; PID:g201525
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##residues 1-92 ##label DAV
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#accession A32393
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Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Liauzun, P.; Magazin, M.; Miloux, B.; Minty, C.; Ramond, P.; Vita, N.; Lubker, J.; Shire, B.; Ferrara, P.; Caput, D. submitted to the EMBL Data Library, March 1993
Molecular cloning of MCP-3: a human monocyte-derived monocyte chemoattractant protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Opdenakker, G.; Fiten, P.; Nys, G.; Froyen, G.; Van Roy, N.; Speleman, F.; Laureys, G.; Van Damme, J. Genomics (1994) 21:403-408
The human MCP-3 (SCYR7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome
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                                                                                                                                                                                                                                                                                                                                                                                                                                            #domain signal sequence #status predicted #label SIG\
#product macrophage inflammatory protein #status
experimental #label MAT
#length 92 #molecular-weight 10345 #checksum 5009
#authors Widmer, U.; Yang, Z.; van Deventer, S.; Manogue, K.R.; Sherry, B.; Cerami, A. B. Cerami, A. Timnunol. (1991) 146:4031-4040 Genomic Structure of murine macrophage inflammatory protein-1-alpha and conservation of potential regulatory sequences With a human homolog, LD78.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             monocyte chemotactic protein 3 precursor - human monocyte chemoattractant protein MCP-3 #formal_name Homo sapiens #common_name man 28-Oct-1994 #sequence_revision 28-Oct-1994 #text_change
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##mesidues 1-109 ##label MIN
##cross-references EMBL:X71087; NID:9288396; PID:9288397
                                                                                                                                                                                                   preliminary; translated from GB/EMBL/DDBJ
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##molecule_type DNA
##residues 1-109 ##label OPD
##cross-references GB:X72309
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A54678; JC1478; S32222
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#title Isolation and characterization of LMC, a novel lymphocyte and monocyte chemoattractant human CC chemokine, with #cross-references MUID:98308096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lymphocyte and monocyte chemoattractant CC chemokine - human #formal_name Homo sapiens #common_name man 10-Jul-1998 #sequence_revision 10-Jul-1998 #text_change
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#formal_name Sus scrofa domestica #common_name domestic pig
24-Feb-1995 #sequence_revision 24-Feb-1995 #text_change
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Scheit, K.H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Youn, B.S.; Zhang, S.; Broxmeryer, H.E.; Antol, K.; Fraser
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Porcine luteal cells express monocyte chemoattractant
protein-2 (MCP-2): Analysis by CDNA cloning and northern
                                                                                                                                                                                                                      predicted #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status
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This protein induces proteinase secretion and chemotaxis by
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#length 109 #molecular-weight 12356 #checksum 1535
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Pred. No. 1.13e-03;
4; Mismatches 1; Indels
                                               ##cross_references GDB:138473; OMIM:158106
##ap_position 17q11-17q12
#introns #superfamily macrophage inflammatory protein cytokine; glycoprotein; inflammation
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Pred. No. 1.80e-03;
5; Mismatches 1;
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##residues 1-99 ##label HOS
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#accession JC2417
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Local Similarity 58.3%;
es 7; Conservative
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A33476
Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
Mol. Cell. Biol. (1989) 9:4687-4695
The human homolog of the JE gene encodes a monocyte secretory
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FEBS Lett. (1989) 244:487-493
Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse
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#journal Biochem. Biochys. Res. Commun. (1990) 169:346-351
#title Structure of human monocyte chemotactic protein gene and its regulation by TPA.
#cross_references_MUID:90290466
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monocyte chemoattractant protein 1 precursor - human
GDCF-1; glioma-derived monocyte chemotactic factor 1; MCAF;
MCP-1; monocyte chemotactic factor 1; monocyte secretory
protein; tumor-derived chemotactic factor 2;
protein; tumor-derived chemotactic factor 2;
glioma-derived chemotactic factor 2;
#formal_name Hono saplens #common_name man
20-Fb-1993, #sequence_revision 20-Feb-1993 #text_change
                                                                                                  #domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein-2 #status
predicted #label MAT
#length 99 #molecular-weight 10903 #checksum 7556
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A34561; I57488; JC1096
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Pred. No. 2.85e-03;
2; Mismatches 2; Indels
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##molecule_type mRNA
*superfamily macrophage inflammatory protein
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Adv. Exp. Med. Biol. (1991) 305:47-56
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#cross-references MUID:89153605
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Best Local Similarity 66.7%;
Matches 8; Conservative
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#journal Biochem. Biophys. Res. Commun. (1990) 167:904-909
#title Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form.
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                                                                                                                                         A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemotactic and
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Mol. Cell. Biochem. (1993) 126:61-68
The expression of monograph chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.
                                                                 Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
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Chinese J. Microbloll. Immunol. (1994) 14:29-32
The PCR, cloning and sequencing of human monocyte
chemoattractant protein-1 (MCP-1) gene.
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#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflammatory protein
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##residues
1-99 ##label LIY
##cross-references GB:S69738; NID:g545464; PID:g545465
NCE
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##residues 29-33,'XX',36-52;82-92 ##label DEC
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##residues 24-28, 'Q', 30-99 ##label YEQ
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##molecule_type mRNA
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Neilson, E.G.; Krensky, A.
Kidney Int. (1992) 41:220-225
Isolation and characterization of cDNA from renal tubular
epithelium encoding murine Rantes: A small intercrine from
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MOI. Cell. Biol. (1994) 14:2914-2925
Definition of a lipopolysaccharide-responsive element in the 5'-flanking regions of MuRantes and crg-2.
                                                                                                    #product monocyte chemoattractant protein 1, short form
#status experimental #label MAT2\
#modified_site pyrrolidone carboxylic acid (Gln) (in
mature form) #status experimental\
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#journal J. Immunol. (1994) 152:1182-1189
#title Cloning, genomic organization, and chromosomal localization of the ScyaS gene encoding the murine chemokine RANTES.
#cross-references MUID:94132613
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Eur. J. Immunol. (1992) 22:1477-1481

Molecular cloning and expression of the murine RANTES

Cytokine: structural and functional conservation between
mouse and man.
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#product monocyte chemoattractant protein 1 #status
experimental #label MAT\
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predicted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 #formal_name Mus musculus #common_name house mouse
18-Jun-1993 #sequence_revision 16-Aug-1996 #text_change
cytokine; glycoprotein; inflammation; pyroglutamic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Danoff, T.M.; Lalley, P.A.; Chang, Y.S.; Heeger, P.S.;
                                                                                                                                                                                                                                      #molecular-weight 11025 #checksum 7984
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                                                                                                                                                                                                                                                                               Length 99
                                                                                                                                                                                                                                                                                                    Pred. No. 4.53e-03;
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                                                                                                                                                                                                                                                                                                                               3; Mismatches
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      KEYWORDS
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#journal Biochem. Blophys. Res. Commun. (1997) 231:726-730
#Litle Human monocyte chemotactic protein-2: cDNA tloning and #cross-references MUID:97224420
#accession JC5295
                                                                                                                                                                                                                                                                                         #domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant cytokine RANTES
#status predicted #label MAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Gaps
                                                                                                  ##residues 1-40,'E',42-91 ##label NEI
##cross-references GB:M77747; NID:g200649; PID:g200650
IT This chemoattractant for monocytes but not neutrophils is an immediate-early response protein to LPS stimulation.
                                                                                                                                                                                                                                                                                                                                                       #molecular-weight 10071 #checksum 3010
                                                                                                                                                                                                                                                                                                                                                                                         78.0%; Score 71; DB 1; Length 91; Larity 66.7%; Pred. No. 7.16e-03; Conservative 1; Mismatches 3; Indels
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                                                                translated from GB/EMBL/DDBJ
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the Scy superfamily. #cross-references MUID:92277990
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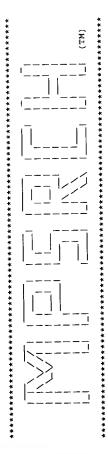
; 0

#domain signal sequence #status predicted #label SIG\ #product monocyte chemotactic protein-2 #status predicted #label MAT #length 99 #molecular-weight 11246 #checksum 6596

24-99

SUMMARY

Search completed: Fri Feb 4 17:27:28 2000 Job time: 16 secs.



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protein - protein database search, using Smith-Waterman algorithm MPsrch_pp

Fri Feb 4 17:33:35 2000; MasPar time 2.52 Seconds 134.696 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-44 (1-12) from US09150813.pep 91 1 QVCADPSESWVQ 12

Description: Perfect Score:

Sequence:

77977 seqs, 28268293 residues Searched:

PAM 150 Gap 15

Scoring table:

Post-processing: Minimum Match 0% Listing first 45 summaries

swiss-prot37 1:swissprot Database:

Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Mean 25.122; Variance 33.379; scale 0.753

## SUMMARIES

Pred. No.	2.87e-08	1.53e - 07	4.59e-07	4.59e-07	4.04e-06	2.01e-05	5.79e-05	9.78e-05	1.65e - 04	1.65e-04	1.65e-04	2.76e-04	4.63e-04	4.63e-04	4.63e-04	7.72e-04	7.72e-04	7.72e-04	1.28e-03	1.28e-03	1.28e-03	1.28e-03	2.13e - 03	
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ID	MI1B HUMAN	MI1B_RABIT	MI1A_HUMAN	MI10 HUMAN	MI1A_RAT	MI1B_RAT	MCP1_CAVPO	MI1B MOUSE	MI1A MOUSE	MCP4 HUMAN	MCP3 HUMAN	MIP4_HUMAN	CCC1_HUMAN	MCP2 PIG	CCC3 HUMAN	MCP1 HUMAN	MCP2 BOVIN	MCP1 CANFA	SISD MOUSE	SISD RAT	MCP2 HIMAN	MCP1 PIG	MI1B_CHICK	
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% Query Match Length	92	92	92	93	92	92	120	92	92	86	66	83	66	66	109	66	66	101	16	0.0		000	90	
% Query Match	100.0	96.7	94.5	94.5	90.1	86.8	84.6	83.5	82.4	82.4	82.4	81.3	80.2	000	80.2	79.1	79.1	7.67	78.1	7.00	78.0	200	76.9	
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[5] SEQUENCE FROM N.A.

RN RP

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INTERLEUKIN-8 PRECURSO	INTERLEUKIN-8 PRECURSO	MONOCYTE CHEMOTACTIC P	MONOCYTE CHEMOTACTIC P	MONOCYTE CHEMOTACTIC P	EMBRYO FIBROBLAST PROT	C10 PROTEIN PRECURSOR.	MONOCYTE CHEMOTACTIC P	EOTAXIN PRECURSOR (EOS	EOTAXIN PRECURSOR (EOS	MONOCYTE CHEMOTACTIC P	MONOCYTE CHEMOTACTIC P	INTERLEUKIN-8 PRECURSO	EOTAXIN PRECURSOR (EOS	INTERLEUKIN-8 PRECURSO	INTERLEUKIN-8 PRECURSO	INTERLEUKIN-8 PRECURSO	MACROPHAGE INFLAMMATOR	I-CELL SPECIFIC RANTES	T-CELL SPECIFIC RANTES	SOUT GOODING SHAREOU	EUTALIN PRECURSOR (EUS
IL8_CANFA	11.8 PTG	MCP1 RAT	MCP1 MOUSE	MCPB BOVIN	EMF1 CHICK	C10_MOUSE	MCP1 RABIT	EOTA MOUSE	EOTA RAT	MCPA BOVIN	MCP5 MOUSE	TI'S BOVIN	EOTA HUMAN	ILS HUMAN	IL8 CERTO	IL8 MACMU	MIIG MOUSE	SISD PIG	CTCD CAVEO	STOP CUIT	EOTA_CAVPO
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## ALIGNMENTS

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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation. The European Bioinformatics Institute. There are no restrictions on its muse by non-profit institutions as long as its content is in no way entities requires tatement is not removed. Usage by and for commercial or send an email to licensedisb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LODI P.J., GARRETT D.S., KUSCEWSKI J., TSANG M.L.S., WEATHERBEE J.A., LEONARD W.J., GRONENBORN A.M., CLORE G.M.; "High-resolution solution structure of the beta chemokine hMIP-1 beta SCIENCE 263:1762-1767(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -i- INDUCTION: BY MITOGENS.
-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                      LEONARD W.J.; "The gene encoding the Act-2 cytokine. Genomic structure, HTLV-I/Tax
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
                                                                                                                                                                                                         SEQUENCE FROM N.A.
MEDLINE; 91373378.
NAPOLITANO_M., MODI W.S., CEVARIO S.J., GNARRA J.R., SEUANEZ H.N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
                                                                             "Isolation and characterization of a cDNA encoding a putative cytokine which is induced by stimulation via the CD2 structure on
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE; 90038522.
MILLER M.D., HATA S., WAAL MALEFYT R., KRANGEL M.S.;
"A novel polypeptide secreted by activated human I lymphocytes.";
J. IMMUNOL. 143:2907-2916(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.
5: INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
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BY SIMILARITY.

T -> C (IN REF 7).

A -> S (IN REF 6).

P -> L (IN REF 2).

ARKLPR -> REASS (IN REF. 3).
                                                                                                                                                                                                                                                                                                                                        responsiveness of 5' upstream sequences, and chromosomal localization.", J. BIOL. CHEM. 266:17531-17536(1991).
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                                                                                                                                                          EUR. J. IMMUNOL. 19:1045-1051(1989).
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EMBL; M2316; G602455; --
EMBL; X53683; G34218; --
EMBL; X53683; G34218; --
EMBL; X53683; G34218; --
EMBL; X16166; G32036; --
EMBL; M69203; G1332376; --
EMBL; M69203; G1332376; --
EMBL; M69201; G1332376; JOINED.
EMBL; M57503; G3332376; JOINED.
EMBL; M57503; G3337776; JOINED.
PIR, B30574; B30574.
                                                    CHANG H.C., REINHERZ E.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 6-92 FROM N.A.
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CYTOKINE; CHEMOTAXIS;
                                                                                                                              human T lymphocytes.
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JH0319; JH0319.
A37411; A37411.
                              MEDLINE; 89325421
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LODI P.J. GARRET
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PIR;
PIR;
RANGE SEE STANDER ```

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                                                                                                                                                                                                                                                           01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROPEIN 1-BETA PRECURSOR (MIP-1-BETA) (IMMUNE
ACTIVATION PROTEIN 2) (ACT-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                   (BY SIMILARITY).
-1- SUBBNIT: HOMODIMER (BY SIMILARITY).
-1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BY SIMILARITY.
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
BY SIMILARITY.
A629AB2D CRC32;
                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                          ORYCTOLAGUS CUNICULUS (RABBIT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
LAGOMORPHA; LEPORIDAE; ORYCTOLAGUS.
                                                                                                                                    Score 91; DB 1; Length 92;
Pred. No. 2.87e-08;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 88; DB 1; Length 92;
Pred. No. 1.53e-07;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                 10212 MW; F18E7AFD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE, PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P13236; 1HUN.
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24 92 M;
34 58 B;
35 74 B;
92 AA; 10066 MW;
                                                                                                                            Query Match
Best Local Similarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 91.7%;
des 11; Conservative
                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C-C) (CHEMOKINE CC).
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                                                                                                                                                                             72 OVCADPSESWVQ 83
                                                                                                                                                                                               1 OVCADPSESWVQ 12
                                                                                                                92 AA;
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 56
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P46632;
         CONFLICT
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72 QVCANPSESWVQ 83

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HSSP; P13236; 1HUN
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                                                                O1-OCT-1996 (REL. 10, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACKOPHAGE INTEAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA)
(TONSILLAR LYMPHOCYTE LD78 ALPHA ALPHA) (GOS19-1 PROTEIN) (SIS-BETA)
(PAT 464.1) (SMALC INDUCIBLE CYTOKINE A3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: LD78-ALPHA AND -BETA ARE VERY CLOSELY RELATED. SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -:- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
-:- INDUCTION: BY TPA OR PHA (TPA = 12-0-TETRADECANOYL PHORBOL-13
ACETATE (TUMOR PROMOTER); PHA = PHYTOHEMAGGLUIININ (T-CELL
                                                                                                                                                                                                                                                                                                                                                                                                                   BLUM S., FORSDYKE R.E., FORSDYKE D.R.; "Three human homologs of a murine gene encoding an inhibitor of stem
                                                                                                                                                                                                                                                                                                                   ZIFFEL P.F., BALKE J., IRVING S.G., KELLY K., SIEBENLIST U.; "Mitogenic activation of human T cells induces two closely related genes which share structural similarities with a new family of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAKAO M., NOMIYAMA H., SHIMADA K.; **Structures of human genes coding for cytokine LD78 and their
                                                                                                                                                                                                                                 OBARU K., FUKUDA M., MAEDA S., SHIMADA K.;
"A cDNA clone used to study mRNA inducible in human tonsillar lymphocytes by a tumor promoter.";
Jymphocytes by a tumor promoter.";
Jymphocytes By 4 (1986).
                                                                                                                                                                       EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOL. CELL. BIOL. 10:3646-3658(1990)
                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                            secreted factors.";
J. IMMUNOL. 142:1582-1590(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                             cell proliferation.";
ONA CELL BIOL. 9:589-602(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            XX44018; G34297; ALT_SEQ. M23178; G182847; -. D90144; G219906; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; D00044; D1000469; -. EMBL; M23452; G188559; -. EMBL; M25315; G602453; -. EMBL; X03754; G758089; -.
                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PFAM; PF00048; 118; 1.
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MIM; 182283; -
                                                                                                                                                              HOMO SAPIENS (HUMAN).
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      1 QVCADPSESWVQ 12
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                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE; 86223879.
                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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                                                     MI1A_HUMAN
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MOL. CELL. BIOL. 10:3646-3658(1990).
--- SIMILARITY: 464.1 AND 464.2 ARE VERY CLOSELY RELATED.
--- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BLUM S., FORSDYKE R.E., FORSDYKE D.R.;
"Three human homologs of a murine gene encoding an inhibitor of stem
                             POTENTIAL.
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-AUG-1990 (REL. 15, CREATED)
01-AUG-1990 (REL. 15, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
TONSILLAR LYMPHOCYTE LD78 BETA PROTEIN PRECURSOR (G0S19-2 PROTEIN)
(PAT 464.2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IRVING S.G., ZIPFEL P.F., BALKE J., MCBRIDE O.W., MORTON C.C., BURD P.R., SIEBENLIST U., KELLY K.;
HWO Inflammatory mediator cytokine genes are closely linked and variably amplified on chromosome 17q.";
NUCLEIC ACIDS RES. 18:3261-3270(1990).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                               1; Indels
                                                                                                                                                                                       Length 92;
INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                          Score 86; DB 1; Louis Pred. No. 4.59e-07;
                                                                              BY SIMILARITY.
BY SIMILARITY.
C24DD919 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL, M24110; G182849; ...
EMBL, D90145; G219908; -..
PIR; B30909; B30908.
PIR; B36412; B30412.
PIR; B3673; B35673.
PIR; B3673; B35673.
PIR; B01395; -..
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                       Pred. No. 4.59e-
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          93 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cell proliferation.";
DNA CELL BIOL. 9:589-602(1990).
                                                                                                                                         10085 MW;
                                                                                                                                                                                                94.5%;
                                                                                                                                                                                                                     Local Similarity 91.7%;
nes 11; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
  CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                            71 QVCADPSEEWVQ 82
                                                                                                                                                                                                                                                                                                                                                                 1 QVCADPSESWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE; 91103879.
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                                                                                                                                         92 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCYA3L1 OR 464.2.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRAIN-WISTAR;

MEDLINE, 96183056.

MAKAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;

MAKAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;

"Cytokine-induced neutrophil chemoattractant (CINC)-2 alpha, a novel
"Train-off tat GRO/CINCS, is a predominant chemokine produced by
"I cytokine-induced neutrophil standardages in culture.";

BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1966).

"I PUNCTION: MONKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
HAS CHEMOTACTIC ACTIVITY FOR MONCYTES, NEUTROPHILS, ESCINOPHILS,
BASOPHILS, AND LYMPHOCYTES, REQUIRED FOR LUNG TNF-ALPHA
PRODUCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
PRODUCTION AS AN AUTOCRINE MEDIATOR FOR THE MACROPHAGE
PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR
APHESION MOLECULES REQUIRED FOR NEUTROPHIL INFLUX. THIS PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -!- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SHI M.M., GODLESKI J.J., PAULAUSKIS J.D.,
"Molecular cloning and posttranscriptional regulation of macrophage
inflammatory protein-1 alpha in alveolar macrophages.";
BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN-LONG EVANS; TISSUE-LUNG;
MEDLINE; 952389N.
SHANLEY T.P., SCHMAL. H., FRIEDL H.P., JONES M.L., WARD P.A.;
"Role of macrophage inflammatory protein-1 alpha (MIP-1 alpha) in acute lung injury in rats.";
J. IMMUNOL. 154:4793-4802(1995).
                                                                                                                                                                                                                                                                                                                                                                                         01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
SCYA3 OR MIPILA
                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RATTUS NORVEGICUS (RAT).
EURAKYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                             LD78 BETA / G0S19-2 / 464.2.
                                                                                                                                                                                                           1; Indels
                                                                                                                                                                          Length 93;
                                                                                                                                                                      Score 86; DB 1; Le
Pred. No. 4.59e-07;
0; Mismatches 1;
                                                                                            BY SIMILARITY.
BY SIMILARITY.
21EDDB04 CRC32;
                                    CYTOKINE; CHEMOTAXIS; SIGNAL.
                                                                                                                               93 AA; 10161 MW;
                                                                                                                                                                    94.5%;
                                                                                                                                                                                                         11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN-CD-1; TISSUE-LUNG;
MEDLINE; 95298037.
                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C-C) (CHEMOKINE CC).
                                                          23
93
58
74
PFAM; PF00048; i18; 1.
HSSP; P13236; 1HUN.
                                                                                                                                                                                                                                                                 1 QVCADPSESWVQ 12
                                                                                                                                                                                                                                            72 QVCADPSEEWVQ 83
                                                                                                                                                                                       Local Similarity
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                                                                                          DISULFID
                                                                                                                             SEQUENCE
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                                                                                                              DISULFID
                                                                                                                                                                    Query Match
                                                          SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING.
                                                                                             MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
BY SIMILARITY.
BY SIMILARITY.
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01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-0CT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA).
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EURARXOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                           Score 82; DB 1; Length 92;
Pred. No. 4.04e-06;
2; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. 2.01e-05;
2; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 92;
                                                                                                                              A -> T (IN REF. 2).
C -> W (IN REF. 2 AND 3).
F48CF89F CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3C82B006 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 79; DB 1;
                                                                                                                                                                                                                                                                                              92 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BY SIMILARITY
                                 PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; i18; 1.
HSSP; P13236; 1HUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PSO0472; SMALL_CYTOKINES_CC; 1. PFRM; PF00048; 118; 1. HSSP; P13236; 1HUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                        Pred.
                                                                                          92
57
73
6
57
10335 MW;
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92 N
58 P
74 B
                                                                                                                                                                           90.1%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       86.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                larity 81.8%;
Conservative
           EMBL; U22414; G790633; -. EMBL; U06435; G459150; -.
                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                     |:|||| |:|||
| QVCADPŚESWVQ 12
                                                                                                                                                                                                                       71 QICADPKETWVQ 82
                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  72 QICADPSEPWV 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92 AA;
                                                                                                                                                                                                                                                                                                                                                                SCYA4 OR MIP1B.
                                                                                                                                                                                                                                                                               T 6
MI1B_RAT
P50230;
                                                                                                                            CONFLICT
                                                                                                      DISULFID
                                                                                                                   DISULFID
                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                SIGNAL
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                                                                                           CHAIN
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83.5%;
72.7%;
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                                                                                                                                                                                                                                          C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                         PFAM; PF00048; 118; 1. HSSP; P13236; 1HUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72 QICANPSEPWV 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |:||:||:||
| OVCADPSESWV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
                                                            SEQUENCE FROM N.A. MEDLINE; 89093958.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ó
                                                                                                                                                                                                                               -:- SUBUNIT: MONOMER OR HOMODIMER: IN EQUILIBRIUM (BY SIMILARITY).
-:- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-JUL-1998 (REL. 33, LAST SEQUENCE UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-BETA PRECURSOR (MIP-1-BETA) (H400 PROTEIN) (SIS-GAMMA) (ACT2).
SCYA4 OR MIP1B.
MUS MUSCULUS (MOUSE).
EUKRRYOTA; METAZA.
                                                                                                                                                                             "cDNA cloning of guinea pig monocyte chemoattractant protein-1 and expression of the recombinant protein."; JAMUNOL. 150:5025-5032(1993).
                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SHERRY B., TEKAMP-OLSON P., GALLEGOS C., BAUER D., DAVATELIS G.,
                                                                                                                                                                                                               -! - FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS
                                                                                                        EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; HYSTRICOGNATHI; CAVIIDAE; CAVIA
                                                                                                                                                                                                                                                                                                                                                                                                                   BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
                                          01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1; Length 120;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No. 5.79e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22FAD257 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIMILARITY.
             120 AA
                                                                                                                                                                                                                                                                                                                                                                         PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P80098; 1NCV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 77;
              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13741 MW;
                                  CREATED)
                                                                                       SCYA2 OR MCP1.
CAVIA PORCELLUS (GUINEA PIG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84.6%;
                                                                            CHEMOATTRACTANT PROTEIN-1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8; Conservative
                                                                                                                                                                                                                                                                                                                                                                 EMBL; L04985; G349821; -.
                                                                                                                                                   STRAIN=Z; TISSUE=SPLEEN; MEDLINE; 93267104.
               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                            CYTOKINE; CHEMOTAXIS; SIGNAL 1 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             71 EVCADPTOKWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 OVCADPSESWVQ 12
                                  01-NOV-1995 (REL. 32,
                                                                                                                                                                                                                                                                                                                                                                                                                                                              33
34
97
120 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A. MEDLINE; 89067830.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                  [1]
SEQUENCE FROM N.A.
                                                                                                                                                                                            expression of
                                                                                                                                                                        YOSHIMURA T
              MCP1_CAVPO
Q08782;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
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P10855; P14096;
01-JUL-1989 (REL. 11, CREATED)
01-APR-1990 (REL. 11, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
SCIS-ALPHA) (HEPARIN-BINDING CHEMOTAXIS PROTEIN) (L2G25B).
MOS MOSCULOS (MOUSE).
MOS MOSCULOS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -: FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.
-: SUBGNIT: HOMODIMER (BY SIMILARITY).
-: SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
WOLPE S.D., MASIARZ F., COIT D., CERAMI A.; "Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta."; J. EXP. MED. 168:2251-2259(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MACROPHAGE INFLAMMATORY PROTEIN 1-BETA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                       BROWN K.D., ZURAWSKI S.M., MOSMANN T.R., ZURAWSKI G.;
"A family of small inducible proteins secreted by leukocytes are
members of a new superfamily that includes leukocyte and
fibroplast-derived inflammatory agents, growth factors, and
indicators of various activation processes.";
J. IMMUNOL. 142:679-687(1989).
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0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN-DBA/2J; TISSUE-LIVER;
DAUBERSIES P., LEPRETRE F., BAILLEUL B., GROVE M., PRAGNELL I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 76; DB 1; Length 92;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SUBMITTED (OCT-1991) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A -> P (IN REF. 1).
E -> Q (IN REF. 1).
D -> H (IN REF. 1).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C543B91F CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY.
BY SIMILARITY.
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EMBL, M35590; G199697; -.
EMBL, X62502; G53127; -.
PIR; C30552; C30552.
PIR; JL0088; JL0088.
MGI: 98651; SCXA4.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10168 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -!- TISSUE SPECIFICITY: EXPRESSED IN LUNG, SPLEEN, AND PANCREAS.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WOLPE S.D., DAVATELIS G., SHERRY B., BEUTLER B., HESSE D.G.,
NGUYEN H.T., MOLDAWER L.L., NATHAN C.F., LOWRY S.F., CERAMI A.;
"MACTOPhages secrete a novel heparin-binding protein with
inflammatory and neutrophil chemokinetic properties.";
J. EXP. MED. 167:570-581(1988).
-!- FUNCTION: MONOKINE WITH INFLAMMATORY, PYROGENIC AND CHEMOKINETIC
PROPERTIES. HAS A POTENT CHEMOTACTIC ACTIVITY FOR EOSINOPHILS.
BINDING TO A HIGH-AFFINITY RECEPTOR ACTIVATES CALCIUM RELEASE IN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Genomic structure of murine macrophage inflammatory protein-1 alpha and conservation of potential regulatory sequences with a human
                                                                                                                                                                                                                                                                                                                                                                                                                            GROVE M., LOWE S., GRAHAM G., PRAGNELL I., PLUMB M.; "Sequence of the murine haemopoietic stem cell inhibitor/macrophage inflammatory protein 1 alpha gene."; NUCLEIC ACIDS RES. 18:5561-5561(1990).
                                           DAVATELIS G., TEKAMP-OLSON P., WOLPE S.D., HERMSEN K., LUEDKE C., GALLEGOS C., COIT D., MERRYWEATHER J., CERAMI A., "Cloning and characterization of a cDNA for murine macrophage inflammatory protein (MIP), a novel monokine with inflammatory and chemokinetic properties.";

J. EXP. MED. 167:1939-1944(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN-BALB/CJ, DBA/2J, NOD/LIJ, SJL/J, AND B10.S/J; TISSUE-SPLEEN;
                                                                                                                                                                                                                                                                  BROWN K.D., ZURAWGKI S.M., MOSMANN T.R., ZURAWSKI G.,
"A family of small inducible proteins secreted by leukocytes are
members of a new superfamily that includes leukocyte and
fibroblast-derived inflammatory agents, growth factors, and
indicators of various activation processes.";
J. IMMUNOL. 142:679-687(1989).
                                                                                                                                                                        DAVATELIS G., TEKAMP-OLSON P., WOLPE S.D., HERMSEN K., LUEDKE GALLEGOS C., COIT D., MERRYWEATHER J., CERAMI A.;
J. EXP. MED. 170:2189-2189(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WIDMER U., YANG Z., VAN DEVENTER S., MANOGUE K.R., SHERRY B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MA R.Z., TEUSCHER C.;
SUBMITTED (MAY-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "cDNA sequences of two inducible T-cell genes.";
PROC. NAIL. ACAD. SCI. U.S.A. 86:1963-1967(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IMMUNOL. 146:4031-4040(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            KWON B.S., WEISSMAN S.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C-C) (CHEMOKINE CC).
               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 91016858.
GROVE M., LOWE S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE; 91237116.
                                   MEDLINE; 88258380.
                                                                                                                                                                                                                                        SEQUENCE FROM N.A. MEDLINE; 89093958.
                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. MEDLINE; 89184547.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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MEDLINE; 88154745
                                                                                                                                                                                                                                                                                                                                                                                                   STRAIN-DBA/2J;
                                                                                                                                        [2]
REVISIONS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CERAMI A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       homolog,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
LAVIGNE F., HAMID Q., MURPHY P.M., LUSTER A.D.;
"Human moncoyte chemoattractant protein (MCP)-4 is a novel CC
chemokine with activities on moncoytes, eosinophils, and basophils
induced in allergic and nonallergic inflammation that signals through
the CC chemokine receptors (CCR)-2 and -3.";
IMMUNOL. 157:5613-5626(1996).
                                                                                                                                                                                                                                                                                                                                                                                       MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 4 PRECIRSOR (MCP-4) (MONOCYTE CHEMOATTRACTANT PROTEIN 4) (CK-BETAIO) (NCC-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 75; DB 1; Length 92; Pred. No. 1.65e-04;
                                                                                                                                                                                                                                                                                                                                                      INFLAMMATORY RESPONSE; SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                       BY SIMILARITY.
BY SIMILARITY.
F -> L (IN REF. 3).
V -> A (IN REF. 3).
53979E5E CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98 AA.
                                                                                                                                                                                             PIR; A27596; A27596.
PIR; A30552; A30552.
PIR; A32693; A3293.
PIR; S04533; S04533.
PIR; S11685; S11685.
MGD; MGI: 98260; SCYA3.
PFOSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PFO0048; Il8; 1.
HSSP; P13236; 1HUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
TISSUE-FETAL;
or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EXP. MED. 183:2379-2384(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      10345 MW;
                                               EMBL; X12531; G53123; -.
EMBL; X5372; G297531; -.
EMBL; J04491; G201525; -.
EMBL; M73061; G199695; -.
EMBL; AF065939; G3158440; -.
EMBL; AF065940; G3158442; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       82.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       larity 66.7%;
Conservative
                                                                                                                                 G3158442;
G3158444;
                                                                                                                                              AF065941; G3158444;
AF065942; G3158446;
AF065943; G3158448;
                             EMBL; M23447; G533241; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SCYA13 OR MCP4 OR NCC1.
                                                                                                                                                                                                                                                                                                                                                  CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 OVCADPSESWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    92 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     71 QICADSKETWVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 97113354.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 96235049.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HOMO SAPIENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-HEART
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MCP4_HUMAN
Q99616;
                                                                                                                                                                                                                                                                                                                                                                                                   DISULFID
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                      CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                  SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10
                                                                                                                                                                 EMBL;
                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
                                                                                                                                                 EMBL;
                                                                                                                                                                                  EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND TWO FUNDGLIAND-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE. (LA)MCP-4 AS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4. SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                            POWER C.A., MEYER A., RISON S.C.G., GUVE-COULIN F., WELLS T.N.C.;
SUBMITTED (DEC-1997) TO EMBL/GENBANK/DDBJ DATA BARKS.
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
--- EDASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERAL
WALL DUBLING THE DISEASE PROCESS OF ARTHEROSCLEROSIS. MAY PLAY A
ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MASS SPECTROMETRY: MW-9314; MW_ERR=30; METHOD-MALDI; RANGE=17-98.
MASS SPECTROMETRY: MW-8760; MW_ERR=30; METHOD-MALDI; RANGE=22-98.
MASS SPECTROMETRY: MW-875; MW_ERR=30; METHOD-MALDI; RANGE=24-98.
INDUCTION: BY INTERLEUKIN-1 AND TMF-ALPHA.
TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE, THYMOS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS SEEN IN THE PULMONARY RATERY SMOOTH MUSCLE CELLS.
          MEDLINE; 97341179.

MEDLINE; 97341179.

APPELBAUM E., REAPE T.J., BRANNER M., MAKWANA J., FOLEY J.J.,

APPELBAUM E., REAPE T.J., BRANNER M., MAKWANA J., FOLEY J.J.S.

SCHMIDT D.B., IMBURGIA C., MACNULTY D., MATTHEWS J., O'TONNELL K.,

O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.;

COOLING, IN VIETO expression, and functional characterization of a
novel human CC chemoKine of the monocyte chemotactic protein (MCP)

family (MCP-4) that binds and signals through the CC chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MONOCYTE CHEMOTACTIC PROTEIN 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PYRROLIDONE CARBOXYLIC ACID.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 75; DB 1; Length 98; Pred. No. 1.65e-04;
                                                                                                                                                                                                                                                        DANTE M., GIBSON A.;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
DF52F6EC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                          BÎOL. CHEM. 272:16404-16413(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23
98
24
58
58
74
29
10986 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; U46767; G1732123; -. EMBL; AC002482; G2340091; -EMBL; X98306; E248571; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                82.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EXOGENOUS PATHOGENS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PFAM; PF00048; i18; 1.
HSSP; P13500; 1DOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CYTOKINE: CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98 AA;
                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
TISSUE-FETAL;
                                                                                                                                                                                                                                                                                                                                      TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MIM; 601391;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                             receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
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Gaps

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2; Indels

2; Mismatches

8; Conservative

Matches

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -i- PTM: O-GLYCOSYLATED.
-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SHIRE D., FERRARA P., CAPUT D.; "Molecular cloning of the MCP-3 chemokine gene and regulation of its expression.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.; "Determination of the three-dimensional structure of CC chemokine monocyte chemoattractant protein 3 by 1H two-dimensional NMR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BLUCHEMISTRY 36:4412-442(1997).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND EDSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPDENAKKER G., FITEN P., NYS G., FROYEN G., VAN ROY N., SPELEMAN F.,
LAUREYS G., VAN DAMME J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OPDENAKKER G., FROYEN G., FITEN P., PROOST P., VAN DAMME J.;
"Human monocyte Chemotactic protein-3 (MCP-3): molecular cloning of
the cDNa and comparison with other chemokines.";
BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE; 97053697.
KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
"Structural characterization of a monomeric chemokine: monocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MINTY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUZUN P., MAGAZIN M., MILOUX B., MINTY C., RAMOND P., VITA N., LUPKER J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome
                                                                                                                                                                                                                                                                                                                     EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                         01-DEC-1992 (REL. 24, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (MCP-3) (MONOCYTE CHEMOTATIN PROTEIN 3) (NC28).
                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.
                              99 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUR. CYTOKINE NETW. 4:99-110(1993).
                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BIOCHEMISTRY 36:4412-4422(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRUCTURE BY NMR, AND SUBUNIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         chemokine family.";
J. EXP. MED. 176:59-65(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        chemoattractant protein-3.";
FEBS LETT. 395:277-282(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENOMICS 21:403-408(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C-C) (CHEMOKINE CC).
                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE=OSTEOSARCOMA;
MEDLINE; 92308855.
                                                                                                                                                                                                                                                                                                   (HUMAN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- SUBUNIT: MONOMER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. MEDLINE; 94375065.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A. MEDLINE; 93305913.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97263733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SECUENCE OF 30-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRUCTURE BY NMR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93213290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                spectroscopy.
                                                                                                                                                                                                                                                                 SCYA7 OR MCP3
                                                                                                                                                                                                                                                                                                   HOMO SAPIENS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2-q12.
T 11
MCP3_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE;
                                                                 P80098;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KODELJA V., MUELLER C., POLITZ O., HAKIY N., ORFANOS C.E., GOERDT S.; SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1997 (REL. 35, CREATED)
10-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-UTL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY FROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND
ACTIVATION-REGULATED CHEWOKINE) (CC CHEMOKINE PARC)
SCTAMB OR MIP4.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE-AORTA, AND LUNG;
MEDLINE; 97376836.
MEDLINE; 97376836.
MEDLINE; 97376836.
MINAI T., EABA M., SHOUDAI K., ISHIZUKA K.,
NAKAGAWA T., IWAI T., EABA M., SHOUDAI K., ISHIZUKA K.,
NAKAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
MIURA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
A novel human CC chemokine PARC that is most homologous to
microphage-inflammatory protein-1 alpha/LD78 alpha and chemotactic
for T lymphocytes, but not for monocytes.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                   PFAM; PFG0048; i18; 1. ___CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                     MONOCYTE CHEMOTACTIC PROTEIN 3.
                                                                                                                                                                                                                                                                                                                                                           PYRROLIDONE CARBOXYLIC ACID.
BY SIMILARITY
BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. 1.65e-04;
4; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 1; Length 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                 T -> K (IN REF. 4).
MISSING (IN REF. 4).
7502E19C CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Macrophage inflammatory protein-3 and -4."; PATENT NUMBER US5504003, 02-APR-1996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         89 AA.
                                                                                                                                                                                                                                                                      PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                  POTENTIAL.
                                                                                                                          EMBL, X72309; -; NOT_ANNOTATED_CDS.
EMBL: X71087; G288399; -.
EMBL: X71087; G288399; ALT_INIT.
EMBL: X71087; G288399; ALT_INIT.
EMBL: X71087; G288397; ALT_INIT.
PIR; S32222: S32222.
PIR; A54678; A54678.
PDB: INCV: 15-OCT-97.
MIM: 158106; --
PROSITE; PSO0472; SMALL_CYTOKINDS_CC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 75;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                            EMBL; X72308; G313708; ALT_INIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              11200 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               82.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              58.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ::||||::||||
1 QVCADPSESWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         73 EICADPTOKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LI H., RUBEN S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MIP4_HUMAN
P55774:
                                                                                                                                                                                                                                                                                                                                                                               DISULFID
DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                            CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                MOD_RES
                                                                                                                                                                                                                                                                                                                                    SIGNAL
                                                                                                                                                                                                                                                                                                                                                  CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SCHULZ-KNAPPE P., MAEGERT H.-J., DEWALD B., MEYER M., CETIN Y., KUBBLES M., TOMECZKOWSKI J., KIRCHHOFF K., RAIDA M., ADERMANN K., KIST A., REINECKE M., SILLARD R., PARDIGOL A., UGUCCIONI M., BAGGIGLINI M., FORSSMANN W.-G.; "HCC-1, a novel chemokine from human plasma.";
J. EXP. MED. 183:295-299(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                MACROPHAGE INFLAMMATORY PROTEIN 4.
BY SIMILARITY.
BY SIMILARIZY.
052AA3DC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 74; DB 1; Length by, Pred. No. 2.76e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PARDIGOL A., MAEGERT H.-J., ZUCHT H.D., FORSSMANN W.-G., SCHULZ-KNAPPE P.;
                                WELLS T.N.C., PEITSCH M.C.;
"The chemokine information source: identification and
                                                                                                                                                                                                                                                                                                                                                                                                      CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              93 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A., AND SEQUENCE OF 20-93.
TISSUE-BONE MARROW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CHEMOKINE CC-1 PRECURSOR (HCC-1) (NCC-2) SCYA14 OR NCC2.
                                                                                                                                                                                                                                                                                                                                                                PS00472; SMALL_CYTOKINES_CC; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                      EMBL; AB000221; D1022520; -. EMBL; Y13710; E321838; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89 AA; 9849 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                81.3%;
66.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8; Conservative
                                                                                                                                                                                                           C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
          DISCUSSION OF SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                            PFAM; PF00048; 118; 1.
HSSP; P13236; 1HUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 68 QICADPNKKWVQ 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 OVCADPSESWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Best Local Similarity
                         MEDLINE; 97275308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE; 96136773.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=LIVER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCC1_HUMAN
Q16627;
                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                  PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13
                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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-; - SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŏ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Porcine luteal cells express monocyte chemoattractant protein-2 (MCP-2): analysis by CDNA cloning and northern analysis."; BIOCHEM. BIOCHEM. BIOCHEM. BIOCHEM. BIOCHEM. STOPHYS. RES. COMMUN. 205:148-153(1994).

- :- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN CAN BIND HEPARIN.
                                                                                     SUBMITTED (OCT-1995) TO EMBL/GENBANK/DDBJ DATA BANKS.
SUBMITTED (OCT-1995) TO EMBL/GENBANK/DDBJ DATA BANKS.

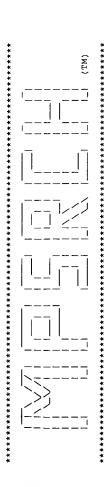
-1- FUNCTION: HAS WEAK ACTIVITIES ON HUMAN MONOCYTES AND ACTS VIA RECEPTORS THAT ALSO RECOGNIZE MIP-1 ALPHAN IT INDUCED INTRACELLULAR CA2+ CHANGES AND ENZYME RELEASE, BUT NO CHEMOTAXIS, AT CONCENTRATIONS OF 100-1,000 NM, AND WAS INACTIVE ON T LYMPHOCYTES, NEUTROPHILS, AND EOSINOPHIL LEUKOCYTES. ENHANCES THE PROLIFERATION OF CD34 MYELOID PROCENITOR CELLS.
-1- TISSUES PREDEITIVE: EXPRESSED CONSTITUTIVELY IN SEVERAL NORMAL TISSUES. SPLEEN, LIYER, SKELETAL AND HEART MUSCLE, GUT, AND BONE MARROW, PRESENT AT HIGH CONCENTRATIONS (1-80 NM) IN PLASMA.
-1- SIMILARITY: EBLONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- SUBGUIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
                                                               PARDIGOL A., MAEGERT H.-J., CIESLAK A., HILL O., SCHULZ-KNAPPE P., FORSSMANN W.-G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTTKE W.W., SCHEIT K.K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUKARYOTA; METAŽOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; SUIFORMES; SUINA; SUIDAE; SUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-6CT-1996 (REL. 34, CREATED)
01-6CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 93;
               SUBMITTED (MAY-1996) TO EMBL/GENBANK/DDBJ DATA BANKS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. 4.63e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 73; DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A3E7BCAD CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHEMOKINE CC-1.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                          ; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10678 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Match 80.2%;
Local Similarity 63.6%;
les 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                                                                                                                                                                                                                                                       EMBL; Z49270; G1004269; -.
                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; 249269; G1004267; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                         C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                      PFAM; PF00048; 118; 1.
HSSP; P13236; 1HUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 VCADPSESWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              74 VCTNPSDKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A. MEDLINE; 95091716.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SUS SCROFA (PIG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CYTOKINE; SIGNAL.
                                                           TISSUE-PLACENTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MCP2_PIG
P49873;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIGNAL
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-- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                CYTOKINE; CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
SIGNAL 1 23 BY SIMILARITY.
CHAIN 24 99 MONOCYIE CHEMOTAACTIC PROTEIN 2.
MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PARDIGOL A., MAEGERT H.-J., ZUCHT H.D., FORSSMANN W.-G., SCHULZ-KNAPPE P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 73; DB 1; L
Pred. No. 4.63e-04;
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BY SIMILARITY.
9AE90F93 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No. 4.63e-04;
2; Mismatches 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                        BY SIMILARITY.
BY SIMILARITY.
B7620BCF CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
01-NOY-1997 (REL. 35, LAST ANNOTATION UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
CHEMOKINE CC-3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 73; DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; Z70293; E233858; -. PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                      PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; 118; 1. HSSP; P80098; INCV.
                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIMATES; CATARRHINI; HOMINIDAE; HOMO
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109 CH
75 BY
91 BY
12297 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99 AA; 10903 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  80.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    larity 66.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                               EMBL; Z48480; G683719; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PFAM; PF00048; i18; 1.
HSSP; P13236; 1HUN.
CYTOKINE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C-C) (CHEMOKINE CC)
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73 EVCADPOOKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-LIVER;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCC3_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
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7; Conservative 3; Mismatches 1; Indels 0; Gaps 0; Matches

90 VCTNPSDKWVQ 100 ||::||: ||| 2 VCADPSESWVQ 12 Οy

Search completed: Fri Feb 4 17:33:42 2000 Job time: 7 secs.



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MPsrch\_pp protein - protein database search, using Smith-Waterman algorithm

Fri Feb 4 17:32:46 2000; MasPar time 3.59 Seconds 133.926 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-44 (1-12) from US09150813.pep 91 Description: Perfect Score: Title:

1 QVCADPSESWVQ 12 Sequence:

122810 seqs, 40068593 residues PAM 150 Gap 15 Searched:

Scoring table:

Post-processing: Minimum Match 0% Listing first 45 summaries

1:pir1 2:pir2 3:pir3 4:pir4 pir60 Database:

Mean 24.455; Variance 36.695; scale 0.666 Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

| Pred. No.           | 4.73e-07              | 4.73e-07              | 2.11e-06              | 5.68e-06              | 5.68e-06              | 4.01e-05              | 4.39e-04              | 7.04e-04              | 1.13e - 03            | 1.13e-03             | 1.80e-03              | 2.85e-03              | 4.53e-03              | 7.16e-03              | 7.16e-03             | 7.16e-03              | 1.13e-02            | 1.13e-02              | 1.13e - 02            | 1.13e-02              | 1.13e-02              | 1.13e - 02            | 1.13e-02              |
|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|-----------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Description         | monocyte adherence-in | macrophage inflammato | immune activation gen | macrophage inflammato | LD78-beta protein pre | macrophage inflammato | monocyte chemoattract | macrophage inflammato | macrophage inflammato | monocyte chemotactic | lymphocyte and monocy | monocyte chemoattract | monocyte chemoattract | monocyte chemoattract | monocyte chemotactic | monocyte chemoattract | interleukin-8 - dog | interleukin-8 - sheep | interleukin 8 - sheep | interleukin-8 precurs | alveolar macrophage c | PDGF-inducible JE gly | immediate-early serum |
| ΙD                  | C60407                | A31767                | 146730                | A30574                | B35673                | 152322                | 148147                | C30552                | A32393                | A54678               | JE0177                | JC2417                | A60299                | A46539                | JC5295               | JC2136                | JN0841              | 146997                | S42496                | A53096                | A44253                | A30209                | 807723                |
| DB                  | 7                     | Н                     | 7                     | ~                     | ~                     | ~                     | 7                     | 7                     | ď                     | ~                    | ~                     | ~                     | ~                     | Н                     | 7                    | 7                     | 7                   | 7                     | 7                     | ~                     | 7                     | ~                     | 7                     |
| Length              | 20                    | 92                    | 92                    | 92                    | 93                    | 92                    | 120                   | 92                    | 92                    | 109                  | 120                   | 66                    | 66                    | 91                    | 66                   | 66                    | 95                  | 101                   | 101                   | 103                   | 103                   | 148                   | 148                   |
| %<br>Query<br>Match | 100.0                 | 100.0                 | 6.7                   | 94.5                  | 94.5                  | 90.1                  | 84.6                  | 83.5                  | 82.4                  | 82.4                 | 81.3                  | 80.2                  | 79.1                  | 78.0                  | 78.0                 | 78.0                  | 76.9                | 76.9                  | 76.9                  | 76.9                  | 76.9                  | 76.9                  | 76.9                  |
| Score               | 91                    | 91                    | 88                    | 98                    | 86                    | 82                    | 77                    | 92                    | 75                    | 75                   | 74                    | 73                    | 72                    | 71                    | 71                   | 71                    | 70                  | 70                    | 70                    | 70                    | 70                    | 70                    | 70                    |
| Result<br>No.       | -                     | 7                     | ю                     | 4                     | S                     | φ                     | 7                     | 80                    | 6                     | 10                   | 11                    | 12                    | 13                    | 14                    | 15                   | 16                    | 17                  | 18                    | 19                    | 20                    | 21                    | 22                    | 23                    |

TITLE ALTERNATE\_NAMES

RESULT ENTRY

g δy JH0319
Balkeras, E.; Roman-Roman, S.; Jitsukawa, S.; Genevee, C.;
Wechiche, S.; Viegas-Pequignot, E.; Hercend, T.; Triebel,
F.

ACCESSIONS REFERENCE #authors

#formal\_name Homo sapiens #common\_name man 07-Jun-1990 #sequence\_revision 29-May-1998 #text\_change 29-May-1998 JH0319; A40978; A31767; A37411; B30574; B45817; D30552

gamma

ORGANISM DATE

| t)        | - uti  | gene C10 protein - mo 1.78e-02 | vte chemoattract | chemoattract | Chemoattract | נ<br>נ<br>נ |          |        | monocyte chemoattract 1.05e-01 |        | 4 6 | sor d        |        |       |        | pro-B-001 growth-s+: 0 500-01 |      |        |        | Neutrophil attractant 5.93e-01 |       | ,      | 10000 | nypotnetical protein 3.14e+UU<br>brain-specific serine 3.14e+UO | NTS        | 4        |                    | uced protein 2 peta - numan (iragment) | _name homo sapiens #common_name man<br>1992 #sequence_revision 06-Nov-1992 #text_change<br>v-1996 |            |           | D.F.; Johnson, C.E.; Morris, J.; | er, M.; Haskill, S. | 4-4441      | uits in selective induction of mover<br>no with mediators of inflammation and |           |                                 |              | compared with conceptual translation |            | ;           | e inflammatory protein<br>9927                   |         | NO. 4./3e-0/;<br>Mismatches 0; Indels 0; Gaps 0; |
|-----------|--------|--------------------------------|------------------|--------------|--------------|-------------|----------|--------|--------------------------------|--------|-----|--------------|--------|-------|--------|-------------------------------|------|--------|--------|--------------------------------|-------|--------|-------|-----------------------------------------------------------------|------------|----------|--------------------|----------------------------------------|---------------------------------------------------------------------------------------------------|------------|-----------|----------------------------------|---------------------|-------------|-------------------------------------------------------------------------------|-----------|---------------------------------|--------------|--------------------------------------|------------|-------------|--------------------------------------------------|---------|--------------------------------------------------|
| A26736    | 15041/ | 149555                         | 146857           | A39296       | TC2336       |             | 00491Z   | A3/034 | A28815                         | ALCOT. | 000 | 14602Y       | 146871 | ETHUL | T53416 | 752707                        | 1000 | 781181 | G01540 | 148148                         | ETMSL | 557723 |       | 105759                                                          | ALIGNMENTS | 4        | * Lype Itagillelit | adherence-induced                      | homo sapiens<br>#sequence_revi<br>6                                                               |            |           | S.A.; Eierman, L                 | G.; Ladner, N       | (TAAO) 144: | sharing homology                                                              | I.        | 367                             |              | not                                  |            | ##label SPO | macrophage<br>#checksum 9                        | Score   | Pred.                                            |
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| 103       |        |                                |                  |              |              |             |          |        |                                |        |     |              |        |       |        |                               |      |        |        |                                |       |        |       |                                                                 |            | 101030   |                    |                                        | # IOTMAL_name<br>06-Nov-1992 #:<br>03-Mav-1996                                                    | C60407     | A60407    | Sporn, S.A.                      | Martin, G           | TIMENIOT.   | genes sharing homology w                                                      | cissue re | MUID:90                         | C60407       | preliminary;                         | mRNA       | 1-50 #      | superfamily macrophage<br>length 50 #checksum 99 | 100.08; | Similarity 100.0% 12; Conservative               |
| ان<br>8.0 | ر<br>د | S.                             | 5.               | 4            | 7            |             |          | 7      | 1.4                            | ,      |     | <del>,</del> | ·.     | 0     | σ      |                               |      | χ.     | 6      | ۲.                             | 3.    | (M)    |       | 200                                                             |            | ď        | 2                  |                                        | .90<br>#                                                                                          | ,<br>C6,   | A6(       | Spo                              | ٠,                  |             | Ę                                                                             |           | ces                             | C6(          |                                      | type       |             | #36                                              | -       | <u> </u>                                         |
| 24 69 75  | 60     | 69                             | 69 2             | 89           | 8            |             | 0 0      | 1 66   | 2 65                           | 3      |     | 00           | 5 64   | 6 64  | 7 63   | 23                            |      | 50.    | 0 63   | 1 61                           | 2 59  | 80     |       |                                                                 |            | RESULT 1 |                    |                                        | DATE                                                                                              | ACCESSIONS | REFERENCE | #authors                         |                     | T T         | ר ד ר ד ע                                                                     |           | #cross-references MUID:90257367 | #accession ( | ##status                             | #molecule_ | S           | CLASSIFICATION<br>SUMMARY                        |         | Best Local Simi.<br>Matches 12;                  |

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Brown, K.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G. J. Immunol. (1989) 142:679-687
A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #authors Chang, H.C.; Reinherz, E.L.
#journal Eur. J. Immunol. (1989) 19:1045-1051
#title Isolation and characterization of a cDNA encoding a putative cytokine which is induced by stimulation via the CD2 structure on human T lymphocytes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist,
                                                                                                                                              ##residues 1-92 ##label BAI ##cross-references GB:X53682; NID:g34217; PID:g34218 ##experimental_source natural killer cell, strain CD3-CD2+, F5, 5IIIE5 NICE A40978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #journal Proc. Natl. Acad. Sci. U.S.A. (1988) 85:9704-9708
#title Identification, cloning, and characterization of an immune activation gene.
#cross-references MUID:89071764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 J. Immunol. (1989) 142:1582-1590
Mitogenic activation of human T cells induces two closely
related genes which share structural similarities with a
new family of secreted factors.
                                                                                                                                                                                                                                                                       Napolitano, M.; Modi, W.S.; Cevario, S.J.; Gnarra, J.R.; Seuanez, H.N.; Leonard, W.J.
J. Biol. Chem. (1991) 266:17531-17536
The gene encoding the Act-2 cytokine. Genomic structure, HTLV-L/tax responsiveness of 5' upstream sequences, and chromosomal localization.
Mol. Immunol. (1990) 27:1091-1102
Cloning and expression of a lymphocyte activation gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Lipes, M.A.; Napolitano, M.; Jeang, K.T.; Chang, N.T.;
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A novel polypeptide secreted by activated human T
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##residues 7-55,'I',57-79,'T',81-92 ##label MIL
##cross-references GB:M57503; NID:9339726; PID:9339727
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ts annotation; conformation and disulfide bond assignments by (1)H-NMR, residues 24-92
This protein is secreted by activated lymphocytes and monocytes. It is bound by chemokine (C-C) receptor 5 (see PIR:A43113) and receptor 1 (see PIR:A45177).
                                                                                                                                                                                                                                                                                                                                                                             #authors Clore, G.M.; Lodi, P.J.; Garrett, D.S.; Gronenborn, A.M.
#submission submitted to the Brookhaven Protein Data Bank, January 1994
#cross-references PDB:1HUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A30574 #type complete macrophage inflammatory protein 1-alpha precursor - human
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                                                                                                                                                                                                                                                                                                                                          Zipfel, P.F.; Balke, J.; Irving, S.G.; Kelly, K.; Siebenlist,
                                                                                                                                                                                             Structures of human genes coding for cytokine LD78 and their
LD78-alpha protein precursor; lymphocyte tumor promoter-induced protein; macrophage inflammatory protein homolog GOS19-1; MIP-lalpha; PAT464; small inducible cytokine A3; T-cell activation protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Obaru, K.; Fukuda, M.; Maeda, S.; Shimada, K.
J. Biochem. (1986) 99:885-894
A cDNA clone used to study mRNA inducible in human tonsillar
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an inhibitor
#cross_references WUID:91103879
                                                                                                                                                                                                                                                                                                                                                                            #journal J. Immunol. (1989) 142:1582-1590
#title Mitogenic activation of human T cells induces two closely related genes which share structural similarities with a "cross-references MUID:89140347
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##cross-references GB:D90144; NID:g219905; PID:d1014875; PID:g219906
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                                                                         #formal_name Homo sapiens #common_name man
03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change
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CLASSIFICATION #superfamily macrophage inflammatory protein
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A35673; A30574; A30412; A24198; A30908
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                                                                                                                                                               М.; Nomiyama, Н.; Shimada, к
ell. Biol. (1990) 10:3646-3658
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Best Local Similarity 91.7%;
Matches 11; Conservative
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##residues 1-92
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LD78-beta protein precursor - human

#type complete

B35673

ENTRY

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Nakao, M.; Nomiyama, H.; Shimada, K.
Mol. Cell. Biol. (1990) 10:3646-3658
Structures of human genes coding for cytokine LD78 and their
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Two inflammatory mediator cytokine genes are closely linked and variably amplified on chromosome 17q.
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This protein is a member of a "small inducible" or "activation specific" gene family, is likely to be an early-acting interleukin, and is the product of a putative G0/G1 switch gene.
                                                                                                                                                                                                                                                                                                                                                                                                             #authors Blum, S.; Forsdyke, R.E.; Forsdyke, D.R.
#journal DNA Cell Biol. (1990) 9:589-602
#title Three human homologs of a murine gene encoding an inhibitor of stem cell proliferation.
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#product LD78-beta protein #status predicted #label MAT
#length 93 #molecular-weight 10161 #checksum 7784
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#formal_name Homo sapiens #common_name man
28-Sep-1990 #sequence_revision 28-Sep-1990 #text_change
macrophage inflammatory protein homolog GOS19-2; small
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##cross-references GB:M24110; GB:M32338; NID:g182848; PID:g182849
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macrophage inflammatory protein-lalpha - rat
#formal_name Rattus norvegicus #common_name Norway rat
29-May-1998 #sequence_revision 29-May-1998 #text_change
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Pred. No. 5.68e-06;
0; Mismatches 1; Indels
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Shi, M.M.; Godleski, J.J.; Paulauskis, J.D.
                                                                                                             B35673; B30412; S10157; B30908
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##cross-references GB:M23503; NID:9533244; PID:9533245
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#file A family of small inducible proteins secreted by leukocytes are members of a new superifamily that includes leukocytes and midicators of a new superifamily that includes leukocytes and indicators of a new superifamily that includes leukocytes and indicators of various activation processes.
#cross-references MUD:89093958
#accession C30552
#molecule_type mRNA
##residues 1-92 ##label BRO
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monocyte chemoattractant protein-1 - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
09-May-1997
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                  Biochem. Biophys. Res. Commun. (1995) 211:289-295
Molecular cloning and posttranscriptional regulation of
macrophage inflammatory protein-1 alpha in alveolar
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##cross-references EMBL:U22414; NID:9790632; PID:9790633
#IPCATION #superfamily macrophage inflammatory protein
#IPCATION #superfamily macrophage inflammatory protein
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#length 120 #molecular-weight 13741 #checke
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##cross-references GB:L04985; NID:9349820; PID:9349821
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2; Mismatches 1,
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J. Immunol. (1993) 150:5025-5032
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                                                                                                                                                                                       1-92 ##label RES
                                                                                                         #cross-references MUID:95298037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            84.6%;
                                                                                                                                                                                                                                                                                    y Match 90.18;
Local Similarity 75.08;
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                                                                                                                                                                                                                                                                                                                         9; Conservative
                                                                                          macrophages
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#title
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#journal J. Exp. Med. (1988) 168:2251-2259
#title Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.
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#product macrophage inflammatory protein 1-beta #status
experimental #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status
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macrophage inflammatory protein-1-alpha precursor - mouse
macrophage inflammatory protein; L2G25B protein;
heparin-binding chemotaxis protein; L2G25B protein;
SCI/MIP-la; SIS alpha; stem cell inhibitor/macrophage
inflammatory protein 1-alpha; T-cell activation protein
Sherry, B.; Tekamp-Olson, P.; Gallegos, C.; Bauer, D.;
Davatelis, G.; Wolpe, S.D.; Masiarz, F.; Colt, D.; Cerami,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     #authors Grove, M.; Lowe, S.; Graham, G.; Pragnell, I.; Plumb, M. #journal Nucleic Acids Res. (1990) 18:5561
#fille Sequence of the murine haemopoietic stem cell inhibitor/macrophage inflammatory protein 1-alpha gene. #cross-references MUID:91016858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Daubersies, P.; Lepretre, F.; Bailleul, B.; Grove, M.; Pragnell, I.; Plumb, M. submitted to the EMBL Data Library, October 1991 Sequence of the murine macrophage inflammatory protein 1b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     #formal_name Mus musculus #common_name house mouse 17-Jul-1992 #text_change
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                                                                                                                                                                                                                                                                  ##residues 1-92 ##label SHE
##cross-references GB:M35590; NID:g199696; PID:g199697
                                                                                                                                                                                                                                                                                                                                                                       24-33,'XX',36,'X',38 ##label SH2
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Pred. No. 7.04e-04;
3; Mismatches 0;
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##residues 1-92 ##label DAU
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Local Similarity 72.7%;
Les 8; Conservative
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#authors Brown, R.D.; Zurawski, S.M.; Mosmann, T.R.; Zurawski, G.
#journal J. Immunol. (1989) 142.579-687
A family of small inducible proteins secreted by leukocytes are members of a new superfamily that includes leukocyte and fibroblast-derived inflammatory agents, growth factors, #cross-references MuID:89093958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                #journal J. Exp. Med. (1988) 168:2251-2259
#title Resolution of the two components of macrophage inflammatory protein 1, and cloning and characterization of one of those components, macrophage inflammatory protein 1 beta.
                                                                                                                                                                                                                                                                                                                                  J. Exp. Med. (1988) 167:1939-1944
Cloning and characterization of a cDNA for murine macrophage
differs at several positions from the sequence given
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             the authors translated the codon GAG for residue 49 as Asp and ATT for residue 91 as Asn the Sequence has been corrected in reference A53885
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Davatelis, G.; Wolpe, S.D.; Masiarz, F.; Coit, D.; Cerami,
                                                                                                                                                                                                                                                                 Davatelis, G.; Tekamp-Olson, P.; Wolpe, S.D.; Hermsen, K.;
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Luedke, C.; Gallegos, C.; Coit, D.; Merryweather, J.;
Cerami, A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  D.G.; Nguyen, H.T.; Moldawer, L.L.; Nathan, C.F.; Lowry, S.F.; Cerami, A.
                                                                                                                                                                                                                                                                                              Luedke, C.; Gallegos, C.; Coit, D.; Merryweather, J.;
Cerami, A.
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#title Macrophages secrete a novel heparin-binding protein with
inflammatory and neutrophil chemokinetic properties.
#accession A27596
                                                                                                                                                                                                                                                                                                                                                                                          inflammatory protein (MIP), a novel monokine with inflammatory and chemokinetic properties. #cross.references MUID:88258380 #accession $604533
                                           #authors Kwon, B.S.; Weissman, S.M.
#fournal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1963-1967
#title CDNA sequence of two inducible T-cell genes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     26-Met, 30-Pro, and 39-Thr were also found
                                                                                                                                                                                       #residues 1-92 ##label KWO
#cross_references GB:J04491; NID:9201525
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##cross-references EMBL:X12531
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erratum
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##residues 24-33,'>
                                                                                                                                                             ##molecule_type mRNA
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The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Opdenakker, G.; Froyen, G.; Fiten, P.; Proost, P.; Van Damme,
#domain signal sequence #status predicted #label SIG\
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Human monocyte chemotactic protein-3 (MCP-3): Molecular
cloning of the cDNA and comparison with other chemokines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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                                                                                                                                                                                                                                                                                                                                                                              #product macrophage inflammatory protein #status
experimental #label MAT
ith 92 #molecular-weight 10345 #checksum 5009
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                                                                                                                                                           preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 75; DB 2; Length 92;
Pred. No. 1.13e-03;
3; Mismatches 1; Indels
                                                                                                                                                                                                                                                                             23/3; 26/1; 63/2
#superfamily macrophage inflammatory protein
heparin binding
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##residues 1-109 ##label MIN
##cross-references EMBL:X71087; NID:9288396; PID:9288397
                                                                                                                                                                                                                 ##cross-references GB:M73061; NID:g199694; PID:g199695
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                                                                                                                                                                                              1-92 ##label RES
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                                                                                                                                                                                                                                 This protein is a monokine.
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#cross-references MUID:94375065
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Local Similarity 66.7%;
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##experimental_source corpus luteum
IFICATION #superfamily macrophage inflammatory protein
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Blochen. Blophys. Res. Commun. (1998) 247:217-222
Blochen. Blocharacterization of LMC, a novel lymphocyte and monocyte chemoattractant human CC chemokine, with
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lymphocyte and monocyte chemoattractant CC chemokine - human #formal_name Homo sapiens #common_name man 10-Jul-1998 #sequence_revision 10-Jul-1998 #text_change
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monocyte chemoattractant protein-2 precursor - pig
#formal_name Sus scrofa domestica #common_name domestic pig
24-Feb-1995_#sequence_revision 24-Feb-1995 #text_change
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Blothem. Blophys. Res. Commun. (1994) 205:148-153
Porcine luteal cells express monocyte chemoattractant protein-2 (MCP-2): Analysis by CDNA cloning and northern
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#binding_site carbohydrate (Asn) (covalent) #status
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Best Local Similarity 50.0%; Pred. No. 1.80e-03;
Matches 6; Conservative 5; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                               82.4%; Score 75; DB 2; Length 109; 58.3%; Pred. No. 1.13e-03; arive 4; Mismatches 1; Indels
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                                                                                                                                                *superfamily macrophage inflammatory protein cytokine; glycoprotein; inflammation
                                                                   myelosuppressive activity.
#cross-references MUID:98308096
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#accession JO2A177
##molecule_type_mRNA
##residues 1-99 ##label HOS
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                                         macrophages and monocytes.
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Matches 7; Conservative
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#authors Yoshimura, T.; Yuhki, N.; Moore, S.K.; Appella, E.; Lerman, M.I.; Leonard, E.J.
#journal FEBS Lett. (1989) 244,487-493
#title Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood monounclear leukocytes, and sequence similarity to mouse competence gene JE.
#accession S03339
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The human homolog of the JE gene encodes a monocyte secretory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #authors Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.
#journal Biochem. Biophys. Res. Commun. (1990) 169:346-351
#title Structure of human monocyte chemotactic protein gene and its regulation by TPA.
#cross-references MUID:90290466
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                                                                                                                                                                                                                                                                                                                                                                                                                                       monocyte chemoattractant protein 1 precursor - human monocyte chemoattractant protein 1 precursor 1: MCAF; GDCF-1; glioma-derived monocyte chemotactic factor 1; monocyte secretory protein; tumor-derived chemotactic factor 1; monocyte secretory protein; tumor-derived chemotactic factor 2 (GDCF-2) #formal_name Homo sapiens #common_name man 20-Feb-1993 #sequence_revision 20-Feb-1993 #text_change
#domain signal sequence #status predicted #label SIGN #product monocyte chemoattractant protein-2 #status predicted #label MAT #length 99 #molecular-weight 10903 #checksum 7556
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A34561; I57488; JC1096
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PID:9386961
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##molecule_type mRNA
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                                                                                                                                            Score 73; DB 2; Length 99;
Pred. No. 2.85e-03;
2; Mismatches 2; Indels
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Adv. Exp. Med. Biol. (1991) 305:47-56
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##residues 1-99 ##label ROL
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##residues 1-99 ##label SHY
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#accession I51841
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Best Local Similarity 66.7%;
Matches 8; Conservative
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Int. J. Cancer (1990) 45:795-797
A chemoattractant expressed in human sarcoma cells
(tumor-derived chemotactic factor, TDCF) is identical to
monocyte chemoattractant protein-1/monocyte chemotactic and
activating factor (MCP-1/MCAF).
                                                                                                                                                                                                                                                                                                                                         #authors Furutani, Y.; Nomura, H.; Notake, M.; Oyamada, Y.; Fukui, T.; Yamada, M.; Larsen, C.G.; Oppenheim, J.J.; Matsushima, K. #journal Biochem. Biophys. Res. Commun. (1989) 159:249-255
Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Li, Y.S.; Shyy, Y.J.; Wright, J.G.; Valente, A.J.; Cornhill, J.F.; Kolattukudy, P.E.
Mol. Cell. Biochem. (1993) 126:61-68
The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo.
                                                               Bottazzi, B.; Colotta, F.; Sica, A.; Nobili, N.; Mantovani,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Griffin, P.R.; Yoshimura, T.; Leonard, E.J.; Tanaka, S.; Griffin, P.R.; Shabanowitz, J.; Hunt, D.F.; Appella, E. Proc. Natl. Acad. Sci. U.S.A. (1989) 86:1850-1854 complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune
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                  ##cross-references GB:S71513; NID:9240867; PID:9240868
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#map_position 17q11.2-17q12
CLASSIFICATION #superfamily macrophage inflammatory protein
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NCE JC1096
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##residues 24-28,'Q',30-99 ##label YEQ
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##residues 'X',25-99 ##label ROB
  1-99 ##label YO2
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##residues 1-99 ##label LIY
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#accession 157488
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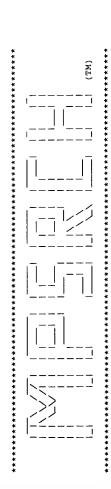
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#product monocyte chemoattractant protein 1, short form
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#title Cloning, genomic organization, and chromosomal localization
of the Scya5 gene encoding the murine chemokine RANTES.
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#journal Mol. Cell. Biol. (1994) 14:2914-2925
#title Definition of a lipopolysaccharide-responsive element in the 5' flanking regions of Murantes and crg-2.
#cross-references MulD:94217689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Neilson, E.G.; Krensky, A.
Kidney Int. (1992) 41:220-225
Isolation and characterization of cDNA from renal tubular
epithelium encoding murine Rantes: A small intercrine from
                                                                                           #domain signal sequence #status predicted #label SIG\
#product monocyte chemoattractant protein 1 #status
experimental #label MAT\
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*modified_site pyrrolidone carboxylic acid (Gln) (in
mature form) *status experimental\
*binding_site carbohydrate (Asn) (covalent) *status
predicted
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Eur. J. Immunol. (1992) 22:1477-1481
Molecular cloning and expression of the murine RANTES
CYtCkine: structural and functional conservation between
mouse and man.
    cytokine; glycoprotein; inflammation; pyroglutamic acid
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#authors van Coillie, E.; Froyen, G.; Nomiyama, H.; Miura, R.; Fiten, P.; Van Aelst, I.; Van Damme, J.; Opdenaker, G. P.; Van Aelst, I.; Van Damme, J.; Opdenaker, G. Biochem. Biophys. Res. Commun. (1997) 231:726-730 #title Human monocyte chemotactic protein-2: cDNA cloning and regulated expression of mRNA in mesenchymal cells.
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##residues
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28.0%; Score 71; DB 2; Length 99;

Best Local Similarity 66.7%; Pred. No. 7.16e-03;

Matches 8; Conservative 2; Mismatches 2; Indels
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Pred. No. 7.16e-03;
1; Mismatches 3; Indels
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the Scy superfamily. #cross-references MUID:92277990
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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

protein - protein database search, using Smith-Waterman algorithm MPsrch\_pp

Fri Feb 4 17:32:10 2000; MasPar time 3.66 Seconds 69.659 Million cell updates/sec Run on:

>US-09-150-813-44 (1-12) from US09150813.pep

Tabular output not generated.

1 QVCADPSESWVQ 12 Description: Perfect Score: Sequence:

Scoring table:

170751 seqs, 21266608 residues Searched:

Minimum Match 0% Listing first 45 summaries Post-processing:

a-geneseq35 Database:

|:part1 | 2.part2 | 3.part3 | 4.part4 | 5.part5 | 6.part6 | 7.part7 | 8.part8 | 9.part9 | 10.part10 | 11.part11 | 12.part12 | 13.part13 | 14.part14 | 15.part15 | 16.part10 | 17.part17 | 18.part18 | 19.part19 | 20.part20 | 21.part21 | 22.part22 | 23.part23 | 24.part24 | 25.part25 | 26.part26 | 27.part27 | 28.part28 | 29.part29 | 30.part30 | 31.part31 | 32.part32 | 33.part33 | 34.part34 | 35.part35 | 36.part36 | 37.part37 | 38.part38 | 39.part39 | 39.part39 | 37.part39 | 37.part39 | 37.part37 | 38.part38 | 37.part39 |

Mean 18.046; Variance 69.849; scale 0.258 Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

| Result<br>No. | Score | Query<br>Match | &<br>Query<br>Match Length DB | DB              | ΙD     | Description           | Pred. No |
|---------------|-------|----------------|-------------------------------|-----------------|--------|-----------------------|----------|
| 1             | 91    | 100.0          | 69                            | 7               | R38981 | LD78 Glu56>Ser.       | 8.88e-02 |
| 7             | 91    | 100.0          | 74                            | 7               | R38925 | ACT-2.                | 8.88e-02 |
| ო             | 91    | 100.0          | 91                            | ч               | P91030 | Human H400 polypeptid | 8.88e-02 |
| 4             | 91    | 100.0          | 92                            | 39              | W82717 | Human Act-2 protein.  | 8.88e-02 |
| S             | 91    | 100.0          |                               | 7               | R36770 | MIP-1beta.            | 8.88e-02 |
| 9             | 91    | 100.0          |                               | 4               | R22712 | Human MIP-1 alpha     | 8.88e-02 |
| 7             | 91    | 100.0          |                               | П               | R04220 | Act-2 clone gene prod | 8.88e-02 |
| 80            | 91    | 100.0          | 92                            | 7               | R04222 | pAT744 gene product e | 8.88e-02 |
| σ             | 91    | 100.0          | 92                            | 35              | W76225 | Human chemokine MIP-1 | 8.88e-02 |
| 10            | 91    | 100.0          |                               | 13              | R70798 | MIP-1-beta.           | 8.88e-02 |
| 11            | 91    | 100.0          |                               | -               | R05900 | Act-2 gene product.   | 8.88e-02 |
| 12            | 91    | 100.0          |                               | <del>, -1</del> | R05903 | pAT 744 gene product. | 8.88e-02 |
| 13            | 91    | 100.0          | 331                           | 35              | W76223 | Human chemokine MIP-1 | 8.88e-02 |
| 14            | 86    | 94.5           | 99                            | 7               | R38948 | N1-3 LD78.            | 2.65e-01 |
| 15            | 86    | 94.5           | 69                            | 7               | R39146 | LD78 Arg17>Glu.       | 2.65e-01 |
| 16            | 86    | 94.5           | 69                            | 7               | R38938 | LD78 Phe28>Glu.       | 2.65e-01 |
|               |       |                |                               |                 |        |                       |          |

| 2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01<br>2.65e-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | .65e-0  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| a.<br>1, Arg45<br>a.<br>1, Gln18<br>a.<br>1, Gln29<br>a.<br>1, Glu29<br>a.<br>61078.<br>erl>Pro<br>octein.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |         |
| Ser46>All<br>Lys40>All<br>Lys40>Csl<br>Lys44>Gsl<br>Lys44>Gsl<br>Lys44>Gsl<br>Lys44>Gsl<br>Lys44>Gsl<br>Ag112>Se<br>Ag112>Se<br>Ag12>Sel<br>Ag18>Gsl<br>Ag18>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4>Gsl<br>Ag4<br>Ag4<br>Ag4<br>Ag4<br>Ag4<br>Ag4<br>Ag4<br>Ag4 | 1-alpha |
| LD78 LD78 LD78 LD78 LD78 LD78 LD78 LD78                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MIP     |
| K389957<br>K389957<br>K389922<br>K3899282<br>K389929<br>K389929<br>K389959<br>K389958<br>K389968<br>K389968<br>K389968<br>K389968<br>K389968<br>K389968<br>K389968<br>K389968<br>K389968<br>K389968<br>K389968<br>K389968<br>K389968<br>K389968                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 707     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 13      |
| 9 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 93      |
| QQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4       |
| 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2) 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 98      |
| 11112222222222222222222222222222222222                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 45      |

## ALIGNMENTS

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Example 56; Page 70; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
harlogues of natural stem cell inhibitors, such as LD78 and MIP-
beyond certain stages (e.g. dodecamer), have improved solution
beyond certain stages (e.g. dodecamer), have improved solution
properties leading to enhanced productivity and greater therapeutic
utility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
host pref. LD78 analogues are Phel2>Gln, Lys44>Ser, Arg1>Glu (with
Gln18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Pref. MIP-lalpha
snanlogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                               WPI; 93-227322/28.
Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer,
                               23-NOV-1993 (first entry)
D1D8 Glu56×Ser.
SCI: stem cell inhibition; LD78; ACT2; MIP-lalpha;
macrophage inflammatory protein; multimer; tumour therapy;
poriasis; hyperproliferation.
W09313206-A.
                                                                                                                                                              23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(RRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RM, Gilbert RJ;
R38981 standard; Protein; 69 AA
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Gaps ; Score 91; DB 7; Length 69; Pred. No. 8.88e-02; 0: Mismatches 0; Indels Query Match
Best Local Similarity 100.0%;
Matches 12; Conservative

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48 gvcadpseswvg 59 g

1 QVCADPSESWVQ 12

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providing better tissue penetration

providing better tissue penetration

bisclosure; Page 181-182; 294pp; English.

The secondary and territary structure of LD78 and MTP-lalpha have
been shown to be almost identical. Only a difference in the nature
of a side-chain or charge interaction in the vicinity of Trp57 is
of a side-chain or charge interaction in the vicinity of Trp57 is
conserved for the two proteins. Despite having a similar secondary
structure to LD78 and MTP-lalpha, near u.v. c.d. studies show ACT2
and intensity of the spectrum. This provides strong evidence that
LD78 and not ACT2 is the human homologue of MTP-lalpha.

Analogues of natural stem cell inhibitors, such as LD78 and MTP-
lalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
cutility as stem cells protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
cutility as stem cells.

England and, esp., Asp28-Ala and Glu66>Ser. Pref. MTP-lalpha
senalogues
conneced.

The malogues of the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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H400 polypeptide; markers; activated T cells;
pcD(SR-alpha)-H400; immunogenic; immune system; anitbody; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protein with stem cell inhibition activity, e.g. LD78 or MIP-1 alpha - unable to form stable multimer higher than dodecamer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ..
O
                                                                                                                                                                 SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha; macrophage inflammatory protein; multimer; tumour therapy; psoriasis; hyperproliferation.
Synthetic (Homo saplens).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 91; DB 7; Length 74; Pred. No. 8.88e-02; 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gilbert RJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (SCHE) Schering Biotech. Co.
Brown KD, Mosmann TR, Zurawski G, Zurawski SM;
WPI; 89-243262/34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (BRBI-) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
JT 2
R38925 standard; Protein; 74 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P91030 standard; peptide; 91 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-NOV-1989 (first entry).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match 100.0%;
Local Similarity 100.0%;
                                                                                              23-NOV-1993 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                  08-JUL-1993,
23-DEC-1992; G02390,
23-DEC-1991; GB-027319,
14-OCT-1992; GB-021587,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13-FEB-1989; 301341.
18-FEB-1988; US-157743.
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EP-329363-A.
23-AUG-1989.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hunter MG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craig S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                      R38925;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          peptide
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   RESULT
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                                                                                                  DDT NEED DT NE
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While you shall work the parachemokine, ZCHEMO-8 - used to develop products for treating e.g. ischaemia, reperfusion, wound healing, products for treating e.g. ischaemia, reperfusion, wound healing, by products for treating e.g. ischaemia, reperfusion, wound healing, by inflammantion, asthma or infections bisclosure; Page 93: 131pp; English.

CC This sequence represents a human beta chemokine, ZCHEMO-8 is isolated. CC describe a method in which a novel beta chemokine, ZCHEMO-8 is isolated. Altered levels of ZCHEMO-8 may be indicative of pathological conditions, including infections, cancer, myelopoletic disorders, autoimmune cells of disorders and immunodeficiencies. The ZCHEMO-8 polypeptides can be used, c.g. to reduce the damage in ischaemic and reperfusion injuries, in a wound healing regime to stimulate an infiltration of immune cells (e.g. monocytes, neutrophils, T lymphocytes or basophils) to a wound site to facilitate healing. ZCHEMO may be used to mobilise progenitor cells from the marrow into the peripheral blood for transplants. ZCHEMO-8 polypeptides could be used to further define the role of chemokines in mediating suppression of HIV replication in CAH T-cells and limiting progression of HIV infection to AIDS. Use may be made of ZCHEMO-8 polypeptides during chemotherapy or radiation therapy, to protect haematopietic cells. ZCHEMO-8 antagonists may be ade defective cells. ZCHEMO-8 antagonists may be assented to damachosis, insulin dependent diabetes and systemic lupus erythematosis, rheumatoid arthritis, allergies, asthma or arteriosclerosis. Also benefit come and effective diseases. Antagonists may be used to dampen or inactivate confidence of the declined immune response. The products can also be used confidence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  autoimmune disorder; immunodeficiency; myelopoietic; wound healing; transplant, progenitor cell; HIV infection; AIDS; chemotherapy; reali; macrophage activation inhibitor; B lymphocyte; chronic inflammatory disease; infective disease; diagnosis; detection; drug screening; gene therapy; Act-2.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human Act-2 protein.
Chemokine; ZCHEMO-8; human; pathological condition; infection; cancer;
                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                               0;
                                        for monitoring the immune system.
Disclosure, fig 2; 16pp; English.
H400 polypeptide (see N90532). This protein is specifically produced by activated T cells, and is useful for detecting cells which produce H400 or mRNA transcripts of H400 for monitoring the immune system. Claims 1 and 2 give polypeptides corresp. to the featured peptides above.
                                                                                                                                                                                                                                                Score 91, DB 1, Length 91;
Pred. No. 8.88e-02;
0; Mismatches 0; Indels
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Pred. No. 8.88e-02;
.......hes 0; Indels
                       used as markers specific for activated T cells,
polypeptide H400 and encoding nucleic acid
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W82717 standard; Protein; 92 AA.
                                                                                                                                                                                                                                                  100.08;
                                                                                                                                                                                                                                                                     Best Local Similarity 100.0%;
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Best Local Similarity 100.0%;
Matches 12; Conservative
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                                                                                                                                                                                                                                                                                               12; Conservative
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19-MAY-1998; U10329.
29-MAY-1997; US-047860.
                                                                                                                                                                                                                                                                                                                                       71 qvcadpseswvq 82
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                                                                                                                                                                                                   91 AA;
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Example 3; Fig 1; 38pp; English.

This sequence was deduced from the nucleotide sequence 023729.

This sequence was produced by cloning into the expression vector pyMIP300. The human MIP-lalpha sequence was derived from the lambda gilo cDNA clone hMIP1-13a, and the GAPDH promoter sequence, alpha factor transcription terminator derived from plasmid pGAII, cappa factor transcription terminator derived from plasmid pGAII, construction of which is described in patent application EP034-274. Recombinantly produced MIP proteins have diagnostic and therapeutic utility for detecting and treating infections, cancer, myelopojetic dysfunction and autoimmune diseases. Although not directly cytotoxic for WEHI tumor cells, MIP-I treated macrophages
                                                                                                                                                                                                                                                                                Suppression of megakaryocytopoiesis - by administration of megakaryocytopoiesis - by administration of macrophage inflammatory protein-1 or -2 Disclosure; Page 17: 26pp; English.

A claimed method for reducing the no. of circulating platelets in the bloodstream of a mammal comprises admin. of MIP-1 and/or MIP-2 or their analogues to induce such a reduction. The MIP-1, MIP-2 or analogue may be operatively linked to a carrier. The MIPs can be used to inhibit megakaryocytopoiesis to effect in vivo reduction of platelet nos. They can be used to treat disorders with excessively high platelet counts such as thrombocytosis, stroke, pulmonary emboli
                                                                                                                                 Macrophage inflammatory protein; megakaryocytopoiesis; MIP-1; MIP-2; thrombocythemia; reactive thrombocytosis; stroke; emboli; platelet; myeloproliferative disorder.
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Macrophage inducible protein; cancer diagnosis; infection;
myelopoietic dysfunction; autoimmune disease; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 91; DB 7; Length 92;
Pred. No. 8.88e-02;
0; Mismatches 0; Indels
                                                                           R36770 standard; protein; 92 AA.
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R22712 standard; Protein; 92 AA.
R22712;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 12; Conservative
                                                                                                                                                                                                   27-MAY-1993.
13-NOV-1992; U09671.
15-NOV-1991; US-792988.
(UYPE-) UNIV PENNSYLVANIA.
                                                                                                      29-SEP-1993 (first entry)
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14-SEP-1990; US-582636.
72 gvcadpseswvg 83
                         1 OVCADPSESWVQ 12
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                                                                                                                                                                           Homo sapiens.
WO9309799-A.
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WO9205198-A.
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                                                                                                                       MIP-lbeta.
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tumour targets. MTP-1 treatment stimulated proliferation of mature tissue macrophages; this effect was synergistic with both GSF-1 and GM-CSF. Purified preparations of the recombinantly derived MTP-lalpha peptide alone induced TNF and IL-6 in macrophages, but MTP-labet adid not. As little as twofold excess MTP-lbeta blocked bioactivity defined for native MTP-1 and recombinant MTP-lalpha blocked bioactivity defined for native MTP-1 and recombinant MTP-lalpha errythropoietin of proliferation of less differentiated sequence 92 AR.
                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
exhibited enhanced antibody-independent macrophage cytotoxicity for
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The lymphokine/cytckine-like proteins are associated with the inflammatory response and/or have mitogenic activities. Antigens raised to the proteins may be useful in detection and purification, especially in bloassays of various tumour cells or genetic defects in the inflammatory response.
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Act-2 clone gene product is activated human periferal blood mononuclear cell (PBMC).
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Pred. No. 8.88e-02;
0; Mismatches 0; Indels
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16-DEC-1988; US-312001.
(USSH) US Dept Health & Human.
Siebenlist U, Leonard WJ, Zipfel PJ, Irving SG, Kelly K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New lymphokine-cytokine genes - isolated using mRNA from activated human periferal blood mononuclear cells and T cells.
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Pred. No. 8.88e-02;
0; Mismatches 0; Indels
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16-DEC-1988; 312001.
16-DEC-1988; US-312001.
(USSH) US Dept Health & Human.
Siebenlist U, Leonard WJ, Zipfel PJ, Irving SG, Kelly K;
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PAT744 gene product encoding activated T cell mRNAs.
Periferal blood mononuclear cell; PBMC; lymphokine; cytokine; mitogen; ds.
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Best Local Similarity 100.0%;
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N-PSDB; Q03682.
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1 QVCADPSESWVQ 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This sequence represents a human chemokine MIP-lbeta domain, derived from sequence represents a human chemokine MIP-lbeta domain, derived from HUMACT2A. This sequence is used in the production of a construct comprising an isolated polynucleotide encoding a chimeric polypeptide evalently attached to at least 1 chemokine polypeptide covalently attached to at least 1 thetrologous polypeptide. By including a heterologous protein in the construction, the chimeric polypeptides will have longer and increased biological activity and can direct the chemokine to a particular site. The chimeric polypeptides can also be designed to inhibit or desensitise chemokine receptors. They can be used to affect the chemotactic recruitment of migratory cells, e.g. for stimulating or inhibiting angiogenesis, for regeneration of bone, cartilage, ligament or for treating or preventing inflammatory or autoimmune disorders. They can also be used as vaccine adjuvants or to enhance the activity of antigen corresponding to the chimeric polypeptide may also be useful therapeutics for both conditions associated with the chemokine corresponding to the chemokine domain of the chimeric polypeptide and also in the treatment of some forms of cancer where abnormal expression
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Human chemokine MIP-lbeta domain protein fragment.

Chemokine, MIP-lbeta; chimeric; human; heterologous protein; inhibitor; receptor; chemotaxis; migratory cell; angiogenesis; bone; regeneration; cartilage; ligament; tendon; bone marrow; transplant; inflammation; autoimmune disorder; vaccine adjuvant; antigen presenting cell; cancer; HIV; human immunodeficiency virus; therapy; prevention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                      The lymphokine/cytokine-like proteins are associated with the inflammatory response and/or have mitogenic activities. Antigens raised to the proteins may be useful in detection and purification, especially in bioassays of various tumour cells or genetic defects in the inflammatory response.

The best copy of the sequence available is still unclear and some errors in the sequence may occur.

Sequence 92 AA:
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                             New lymphokine-cytokine genes isolated using mRNA from activated human periferal blood mononuclear cells and T cells. Disclosure: 184pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                               Score 91; DB 1; Length 92;
Pred. No. 8.88e-02;
0; Mismatches 0; Indels
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W76225 standard; Protein; 92 AA.
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Best Local Similarity 100.0%;
Matches 12; Conservative
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Herrmann SH, Swanberg SL;
WPI; 98-495387/42.
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27-FEB-1998; U04002.
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Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                   Screening for cpds. With anti-heparanase activity - by detecting screening for cpds. With anti-heparan sulphate degradation, potentially useful for treating arthritis, restenosis, cancer. Claim 13: Page 47: 60pp; English. Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into pVL1392 baculovirus vector, and expression in Sf9 cells in the presence of reduced Sequence 92 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Probes raised to the gene product may be used in bloassay of the product, useful in detecting tumour cells, genetic defects in the inflammatory response, or in vivo, for the detection of immune system activation. The proteins may also be used to determine the presence of their receptors.
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                                                                                                 Macrophage inflammatory protein 1-beta; MIP-1-beta;
heparanase; heparin; heparan sulfate; arthritis; restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-JUN-1990.
15-DEC-1989; UO5603.
16-DEC-1988; US-285489.
(USDC ) US SEC OF COMMERCE.
SIEBENLIST U, ZIPFEL PE, KELLEY K, IRVING SG, NAPOLITANO M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 91; DB 13; Length 92;
Pred. No. 8.88e-02;
0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R05900 standard; protein; 92 AA.
R70798 standard; Protein; 92 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; 137pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match 100.0%;
Best Local Similarity 100.0%;
Matches 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . Match
Local Similarity 100.0%;
les 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                Ledbetter SR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-NOV-1990 (first entry)
                                                      29-AUG-1995 (first entry)
                                                                                                                                                                                                                                                                      26-JUL-1994; U08207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
                                                                                                                                                               cancer; wound healing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   72 gvcadpseswvg 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 QVCADPSESWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 90-224535/29.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Act-2 gene product
                                                                                                                                                                                                                                                                                                                                                   (UPJO ) UPJOHN CO.
Hoogwerf AJ, Ledb
WPI; 95-082239/11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                               09-FEB-1995.
                                                                                                                                                                                                                WO9504158-A.
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                                                                                     MIP-1-beta.
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0; Gaps

72 qvcadpseswvq 83

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Hunter MG;
                                                                                                                                                                                                                      Sequence
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Matches
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Human chemokine MIP-lbeta domain protein from clone MPB-X.

Chemokine; MIP-lbeta; chimeric; human; heterologous protein; inhibitor; chemotaxis; migratory cell: angiogenesis; bone; reqeneration; cartilage; ligament; tendon; bone marrow; transplant; inflammation; autoimmune disorder; vaccine adjuvant; antigen presenting cell; cancer; HIV; human immunodeficiency virus; therapy; prevention.
                                                                                                                                                                                                                                                                                                                                                                                   0; Gaps
                                                                                                                                                                                                                                                                    Probes raised to the gene product may be used in bioassay of the probes raised to the gene product may be used in bioassay of the product, useful in detecting tumour cells, genetic defects in the inflammatory response, or in vivo, for the detection of immune system activation. The proteins may also be used to determine the presence of their receptors.
                                                                                                                                                                                                                                      New lymphokine-cytokine-like genes - isolated by subtraction cloning and hybridisation using mRNA from activated peripheral blood T cells.
                                                                                                     pAT 744 gene product.
Act-2; human lymphokine/cytokine-like protein; mitogenic; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New chimeric polypeptide(s) - comprise chemokine polypeptide covatently linked to heterologous polypeptide, used for, e.g. chemotactic recruitment of migratory cells claim 16c; Page 50-51; 69pp; English.
                                                                                                                                                                                (USDC ) US SEC OF COMMERCE.
SIBBENLIST U, ZIPFEL PE, KELLEY K, IRVING SG, NAPOLITANO M,
                                                                                                                                                                                                                                                                                                                                                           Score 91; DB 1; Length 93;
Pred. No. 8.88e-02;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /label= MIP-lbeta
/note= "Chemokine domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "signal peptide"
25..331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W76223 standard; Protein; 331 AA.
                                                            .r 12
R05903 standard; protein; 93 AA.
R05903;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /label= signal
                                                                                                                                                                                                                                                                                                                                                           Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 12; Conservative
                                                                                          27-NOV-1990 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GEMY ) GENETICS INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Herrmann SH, Swanberg SL; WPI; 98-495387/42.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27-FEB-1998; U04002.
28-FEB-1997; US-808720.
                                                                                                                                                          15-DEC-1989; U05603.
16-DEC-1988; US-285489.
                                                                                                                                                                                                                                                                                                                                                                                                                  72 qvcadpseswvq 83
                   1 QVCADPSESWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                     73 qvcadpseswvg 84
                                                                                                                                                                                                                  90-224535/29.
                                                                                                                                                                                                                                                                                                                                       93 AA;
                                                                                                                                                                                                                            N-PSDB; Q05299.
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                                                                                                                           Homo sapiens.
WO9007009-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO9838212-A2
                                                                                                                                                 28-JUN-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-SEP-1998
                                                                                                                                                                                                      LEONARD WJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                        Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peptide
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This sequence represents a human chemokine MIP-lbeta domain, isolated from CDNA clone MPB-X. This sequence is used in the production of a construct comprising an isolated polynucleotide encoding a chimaric polypeptide which comprises at least 1 chemokine polypeptide covalently attached to at least 1 heterologous polypeptide. By including a attached to at least 1 heterologous polypeptide. By including a have longer and increased biological activity and can direct the chawce longer and increased biological activity and can direct the chemotracial site. The chimaric polypeptides will constitute to a particular site. The chimaric polypeptides will casigned to inhibit or desensitise chemokine receptors. They can be used to affect the chemotractic recruiting transplanted bone marrow cartilage, ligament or tendon, for requenting inflammatory or stimulating or inhibiting anglogenesis, for regeneration of bone, cartilage, ligament or tendon, for recruiting transplanted bone marrow calls to bone marrow, or for treating or preventing inflammatory or autoimmune disorders. They can also be used as vaccine adjuvants or to enhance the activity of antigen presenting cells and for treating or preventing HIV infection. Neutralising antibodies binding to the chimeric polypeptide and also in the treatment of some forms of the chameric polypeptide and also in the treatment of some forms of cancer where abnormal expression of the chemokine is involved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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Most pref. LD78 analogues are Phel25Gln, Lys44>Ser, Arg17>Glu (with Galn18>Glu) and, esp., Asp26>Ala and Glu66>Ser. Arg17>Glu (with analogues correspond to the pref. LD78 analogues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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Example 23; Page 58; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 93-227322/28.
Protein with stem cell inhibition activity, e.g. LD78 or MIP-1
alpha - unable to form stable multimer higher than dodecamer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
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SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha; macrophage inflammatory protein; multimer; tumour therapy; psoriasis; hyperproliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 91; DB 35; Length 331;
Pred. No. 8.88e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-DEC-1991; GB-027319.
14-0CT-1992; GB-021587.
[RBRI-] BRITISH BIO-TECHNOLOGY LTD.
Craig S. Czaplewski LG, Edwards RM, Gilbert RJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
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0
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91.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 100.08;
Matches 12; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-NOV-1993 (first entry)
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23-DEC-1992; G02390.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             331 AA;
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Protein with stem cell inhibition activity, e.g. LD78 or MIP-I alpha - unable to form stable multimer higher than dodecamer,
The providing better tissue penetration
Example 124; Page 94; 294pp; English.
Example 124; Page 94; 294pp; English.
Analogues of natural stem cell inhibitors, such as LD78 and MIP-
Calalpha, having mutations to prevent or reduce multimer formation
beyond certain stages (e.g. dodecamer), have improved solution
conserved seafing to enhanced productivity and greater therapeutic
cutility as stem cell protective agents. The analogues may be used
in tumour therapy, psoriasis or other diseases involving hyper-
consolierative stem cells.
Canalogues are Phel2>Gln, Lys44>Ser, Arg17>Glu (with
Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>Gln18>
                                                                                                                                                                                                                                                LD78 Arg17>Glu.
SCI; stem cell inhibition; LD78; ACT2; MIP-lalpha;
macrophage inflammatory protein; multimer; tumour therapy;
psoriasis; hyperproliferation.
Homo sapiens.
W09313206-A.
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Pred. No. 2.65e-01;
0; Mismatches 1; Indels
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23-DEC-1992; G02390.
23-DEC-1991; GB-027319.
14-OCT-1992; GB-021587.
(ERBL) BRITISH BIO-TECHNOLOGY LTD.
Craig S, Czaplewski LG, Edwards RM, Gilbert RJ;
.r 15
R39146 standard; Protein; 69 AA.
R39146;
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Best Local Similarity 91.7%;
Matches 11; Conservative
                                                                                                                                                                                    23-NOV-1993 (first entry)
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TIPE SOLLT STAND SOLUTION STAND SOLUTION SOLUTIO
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Search completed: Fri Feb 4 17:32:29 2000 Job time : 19 secs.

48 qvcadpseewvg 59

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Gaps . 0

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protein - protein database search, using Smith-Waterman algorithm MPsrch\_pp

Fri Feb 4 17:39:31 2000; MasPar time 2.52 Seconds 134.543 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-65 (1-12) from US09150813.pep 96 Description: Perfect Score: Title:

1 EICADPKEKWVQ 12 Sequence:

PAM 150 Gap 15 Scoring table:

77977 seqs, 28268293 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

swiss-prot37 1:swissprot

Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Mean 25.586; Variance 32.187; scale 0.795

# SUMMARIES

|    | Pred. N        | 5.73e-                 | 3.40e-                 | 3.40e-                 | 6.13e-                 | ο.                     | 3.55e-                 | 3.55e-                 | 3.55e-                 |                        | 6.34e-                 | 1.13e-                 | 1,13e-                 | 1.13e-                 | 1.13e-                 | 2.01e-                 | 2.01e-                 | 3.56e-                 | 6.31e-                 | 6.31e                  | 6.31e-                 | 6.31e-                 | 1.11e-                 | 1.96e-                 |
|----|----------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
|    | Description    | MONOCYTE CHEMOTACTIC P | EOTAXIN PRECURSOR (EOS | EOTAXIN PRECURSOR (EOS | MONOCYTE CHEMOTACTIC P | EOTAXIN PRECURSOR (EOS | MONOCYTE CHEMOTACTIC P | INTERLEUKIN-8 PRECURSO | INTERLEUKIN-8 PRECURSO | INTERLEUKIN-8 PRECURSO | MONOCYTE CHEMOTACTIC P | MACROPHAGE INFLAMMATOR | MONOCYTE CHEMOTACTIC P | MONOCYTE CHEMOTACTIC P | MONOCYTE CHEMOTACTIC P | INTERLEUKIN-8 PRECURSO | INTERLEUKIN-8 PRECURSO | MONOCYTE CHEMOTACTIC P | EOTAXIN PRECURSOR (EOS | MONOCYTE CHEMOTACTIC P |
|    | ar             | MCP4_HUMAN             | MCP1_HUMAN             | MCP1_CANFA             | MCP1_PIG               | MCP2_BOVIN             | EOTA_MOUSE             | EOTA_RAT               | MCP5_MOUSE             | EOTA_HUMAN             | MCPA_BOVIN             | IL8_CANFA              | IL8_SHEEP              | IL8_PIG                | MCP1_RABIT             | MI1A_RAT               | MCP3_HUMAN             | MCP2_HUMAN             | MCP2_PIG               | IL8_RABIT              | IL8_BOVIN              | MCP1_CAVPO             | EOTA_CAVPO             | MCPB_BOVIN             |
|    | DB             | 7                      | Н                      | Н                      |                        | Н                      | 1                      | Н                      | Н                      | Н                      | Н                      | ٦                      | Н                      | Н                      | -                      | Н                      | Н                      | ~                      | Н                      | -                      | Н                      | Н                      | -                      | 1                      |
|    | Length         | 86                     | 66                     | 101                    | 66                     | 66                     | 97                     | 97                     | 104                    | 46                     | 66                     | 101                    | 101                    | 103                    | 125                    | 92                     | 66                     | 66                     | 66                     | 101                    | 101                    | 120                    | 96                     | 74                     |
| dР | Query<br>Match | 100.0                  | 6.96                   | 6.96                   | 95.8                   | 93.8                   | 92.7                   | 92.7                   | 92.7                   | 91.7                   | 91.7                   | 90.6                   | 90.6                   | 90.6                   | 90.6                   | 9.68                   | 9.68                   | 88.5                   | 87.5                   | 87.5                   | 87.5                   | 87.5                   | 86.5                   | 85.4                   |
|    | Score          |                        | 93                     | 93                     | 92                     | 90                     | 88                     | 89                     | 88                     | 88                     | 88                     | 87                     | 87                     | 87                     | 87                     | 98                     | 98                     | 85                     | 84                     | 84                     | 84                     | 84                     | 83                     | 82                     |
|    | Result<br>No.  | Н                      | 7                      | m                      | 4                      | S                      | 9                      | 7                      | æ                      | σ                      | 10                     | 11                     | 12                     | 13                     |                        | 15                     |                        | 17                     | 18                     | 19                     | 20                     | 21                     | 22                     | 23                     |

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EXOGENOUS PARHOGENS.

1. MASS SPECTROMETRY: MW-9314; MW_ERR=30; METHOD=MALDI; RANGE=21-98.

1. MASS SPECTROMETRY: MW-9314; MW_ERR=30; METHOD=MALDI; RANGE=21-98.

1. MASS SPECTROMETRY: MW-8760; MW_ERR=30; METHOD=MALDI; RANGE=22-98.

1. INDUCTION: BY INTERLEDRININ-1 AND TNF-ALPHA.

1. INDUCTION: BY INTERLEDRININ-1 AND TNF-ALPHA.

1. INSUCRION: BY INTERLEDRININ-1 AND TNF-ALPHA.

1. TISSUE SPECTFORMETRY: MW-6575; MW_ERR=30; METHOD=MALDI; RANGE=24-98.

1. TISSUE SPECTFORMETRY: MUDELY EXPRESSED: POUND IN SMALL INTESTINE, THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.

1. THIS PROTEIN CAN BIND HEBARIN.

2. ITHIS PROTEIN CAN BIND HEBARIN.

3. FURNORIAN COPPORT SOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND RANGOR SOFORM AND LESS ACTIVE THAN MCP-4.

3. COPPORT SOFORM TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE COPPORT COPPORT TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE COPPORT COPPORT TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE COPPORT COPPORT TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE COPPORT COPPORT TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE COPPORT COPPORT TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE COPPORT COPPORT TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE COPPORT COPPORT TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE COPPORT COPPORT TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE COPPORT COPPORT TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE COPPORT TO THE INTERCRINE COPPORT TO THE TOTAL TO THE TOTAL TO THE TOTAL TO
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                                                                                                                              POWER C.A., MEYER A., RISON S.C.G., GUVE-COULIN F., WELLS T.N.C.;
SUBMITTED (DEC-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
1- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTES MONOCYTES, LYMPHOCYTES,
BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONLLERGIC INFLAMMATION.
MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
WALL DURING THE DISEASE PROCESS OF ARTHEROSCLEROSIS. MAY PLAY A
ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-JAN-1990 (REL. 13, CREATED)
01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANDOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
(MONOCYTE CHEMOATTRACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ó
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                        SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
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DF52F6EC CRC32;
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MIM; 601301; ...
PROSITE; PSO00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; i18; 1.
HSSP; P13500; iDDL.
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Best Local Similarity 100.0%;
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DANTE M., GIBSON A.;
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                                                                                    SEQUENCE FROM N.A.
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                                                                                                                  TISSUE=LUNG;
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P13500;
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DISULFID
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RREPRESENTATION OF THE PROPERTY OF THE PROPERT
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"Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE."; FEBS LETT. 244:487-493(1989).
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"Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally processed form."

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                                                                                                                                                                                                         FURUTANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M., LARSEN C.G., OPPENHEIM J.J., MATGUSHIMA K.; Cloling and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF)."

BIOCHEM, BIOPHYS. RES. COMMUN. 159:249-255(1989).
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ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R., SHABANOWITZ J., HUYT D.F., APPELLA E.;
"Complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune reactions.";
PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "The expression of monocyte chemotactic protein (MCP-1) in human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHANG H.C., HSU F., FREEMAN G.J., GRIFFIN J.D., REINHERZ E.L.; "Cloning and expression of a gamma-interferon-inducible gene in monocytes: a new member of a cytokine gene family."; INT. IMMUNOL. 1:388-399(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ROLLINS B.J., STIER P., ERNST T., WONG G.G.; "The human homolog of the JE gene encodes a monocyte secretory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A. MEDILINE; 90290466.
SHYY Y.J. II V.S., KOLATTUKUDY P.E.; SLYX Y.J., SLY LINE of human monocyte chemotactic protein gene and its
HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 94150478.
LI Y.S., SHYY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
KOLATTUKUDY P.E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   YOSHIMURA T., YUHKI N., MOORE S.K., APPELLA E., LERMAN M.I., LEONARD E.J.;
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YOSHIMURA T., LEONARD E.J.;
"Human monocyte chemoattractant protein-1 (MCP-1).";
ADV. EXP. MED. BIOL. 305:47-56(1991).
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MOL. CELL. BIOCHEM. 126:61-68(1993).
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MEDLINE; 89184525.
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FEBS LETT. 395:277-282(1996).
-I-FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
-I-FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES ANTI-TUMOR
BUT NOT NEUTROPHILS OR BESINOPHILS. AGGMENTS MONOCYTE ANTI-TUMOR
ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
CHARACTERIZED BY MONOCYTIC INFLICATES, LIKE PSORIASIS, RHEUMATOID
ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
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PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERTS IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT. SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C.C.) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Structure/activity analysis of human monocyte chemoattractant protein-1 (MCP-1) by mutagenesis. Identification of a mutated protein that inhibits MCP-1-mediated monocyte chemotaxis.";
J. BIOL. CHEM. 269:15918-115924(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WEBER M., UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.; "Deletion of the NH2-terminal residue converts monocyte chemotactic protein 1 from an activator of basophil mediator release to an ensinophil chemoattractant.";
                                                                                                                                                                                                                                                                                                                 MEDLINE; 97143315.
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The structure of WCP-1 in two crystal forms provides a rare example
of variable quaternary interactions.";
NAT. STRUCT. BIOL. 4:64-69(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 96234959.

HANDEL T.M., DOMAILLE P.J.;

"Heteronuclear (1H, 13C, 15N) NMR assignments and solution structure of the monocyte chemoattractant protein-1 (MCP-1) dimer.";
                                 GRONENBORN A.M., CLORE G.M.; "Modeling the three-dimensional structure of the monocyte chemo-attractant and activating protein MCAF/MCP-1 on the basis of the solution structure of interleukin-8."; PROTEIN ENG. 4:263-269(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.; "Structural characterization of a monomeric chemokine: monocyte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EFFECT OF DELETION OF N-TERMINAL RESIDUES.
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ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
                                                                                                                                                                                                                                                                           K-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BIOCHEMISTRY 35:6569-6584(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                eosinophil chemoattractant.";
J. EXP. MED. 183:681-685(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; M31626; G386961; -...
EMBL; M30816; G386961; JOINED.
FWRI.: M31625; G386961; JOINED.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G338009; -.
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MEDLINE; 97053697.
MEDLINE; 91312872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 96195223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRUCTURE BY NMR
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M28225;
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EMBL;
EMBL;
EMBL;
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KUMBER A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELKA G.L., YOUKER K.A., LINDSEY M.L., HAWKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J., ROSSEN R.D., SMITH C.M., ENTMAN M.L.; "Induction of monocyte chemoattractant protein-1 in the small veins of the ischemic and repertused canine myocardium."; cIRCULATION 95:693-700(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FUNCTION: CERMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY REACTION TO REPERPUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM. MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE REPERPUSED MYOCARDIUM.

SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                       MISSING: LOSS OF ACTIVITY.
MISSING: 90% REDUCTION IN ACTIVITY.
MISSING: 90% REDUCTION IN ACTIVITY.
D-AR: 90% REDUCTION IN ACTIVITY.
N-AR: 50% REDUCTION IN ACTIVITY.
S-YO: 40% REDUCTION IN ACTIVITY.
S-YO: 40% REDUCTION IN ACTIVITY.
                                                                                                                                                                                                   SIGNAL; INFLAMMATORY RESPONSE; 3D-STRUCTURE.
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CARNIVORA; FISSIPEDIA; CANIDAE; CANIS.
                                                                                                                                                                                                                                                                                                                                                                                                                     Y->D: LOSS OF ACTIVITY.
R->L: LOSS OF ACTIVITY.
D->L: 90% REDUCTION IN ACTIVITY.
5355B695 CRC32;
                                                                                                                                                                                                                                MONOCYTE CHEMOTACTIC PROTEIN 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-0CT-1996 (REL. 34, CREATED)
01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-UUL-1998 (REL. 36, LAST ANOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
                                                                                                                                                                                                                                            PYRROLIDONE CARBOXYLIC ACID.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 99;
                                                                                                                                                                                                                                                                                                              LOSS OF ACTIVITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 93; DB 1; L
Pred. No. 3.40e-09;
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                                                                                                                                                           MIM; 158105; -.
PROSITE; PSO0472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                     POTENTIAL.
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TISSUE-JUGULAR VEIN ENDOTHELIAL;
MEDLINE; 97176620.
              JOINED.
M28223; G338007; JOINED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ΜW.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MONOCYTE CHEMOTACTIC PROTEIC CHEMOATTRACTANT PROTEIN-1).
           . M28224; G338007; JOIN
5 S69738; G545465;
5 S71513; G240868;
5 A17786; G641145;
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CANIS FAMILIARIS (DOG)
                                                                                                                                                                                      PFAM; PF00048; 118; 1. CYTOKINE; CHEMOTAXIS;
                                                                                         1DOK; 12-MAR-97.
1DOL; 12-MAR-97.
1DOM; 14-OCT-96.
1DON; 14-OCT-96.
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                                                               A35474; A35474.
S03339; S03339.
                                                                                                                                                1MCA; 15-OCT-94
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les 11; Consei
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AA;
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P52203;
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                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE
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MUTAGEN
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                            EMBL;
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-!- INDUCTION: BY TNF-ALPHA.
-!- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR VEINS, AND INFILTRATING LEUKOCYTES.
-!- SIMILARITY: BELOKOGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. MEDLINE; 94183284.
HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTKE W., SCHEIT K.H.; Morsine luteal cells express monocyte chemoattractant protein-1 (MCP-1): analysis by polymerase chain reaction and cDNA cloning."; BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
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-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
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                                                                                                                                                                                                                                                                                                                                                BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                               CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 93; DB 1; Le
Pred. No. 3.40e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Y SIMILARITY.
A7075B14 CRC32;
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LAST ANNOTATION UPDATE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
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                                                                                                                                                                                                                                                                          PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; i18; 1. HSSP; P13500; 1DON.
                                                                                                                                                                                                                                                                                                                                                                                                       SIMILARITY)
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01-NOV-1995 (REL. 32, LAST SEQU
15-JUL-1998 (REL. 36, LAST ANNC
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ilarity 91.7%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 EICADPKEKWVQ 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZACH O.R.F.;
                                                                                                                                                                                                                                                                                                                             CYTOKINE;
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LT 4
MCP1_PIG
P42831;
                                                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WEMPE F., HANES J., SCHEIT K.H.; "Cloning of the gene for bovine monocyte chemoattractant protein-2."; DNA CELL BIOL. 13:1-8(1994).
-1- FUNCTION: CHEMOPACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
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                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ARTIODACIYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOVINAE; BOS
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EURARYOTA; METAZOA; CHORDAȚA; VERTEBRAȚA; MAMMALIA; EUTHERIA;
                                                                                                            CTIOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
SIGNAL
1 23 BY SIMILARITY.
CHAIN 24 99 MONOCYTE CHEMOTACTIC PROTEIN 1.
MOD_RES 24 24 PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MONOCYTE CHEMOTACTIC PROTEIN 2. PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                Score 92; DB 1; Length 99;
Pred. No. 6.13e-09;
2; Mismatches 0; Indels
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Pred. No. 1.98e-08;
                                                                                                                                                                                                                                  BY SIMILARITY.
BY SIMILARITY.
ECC3AFB4 CRC32;
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BY SIMILARITY.
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                                                                                                                                                                                                                 SIMILARITY)
                                            PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. 
PFAM; PF00048; i18; 1. 
HSSP; P13500; 1DON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; i18; 1.
HSSP; P80098; 1NCV.
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                                                                                                                                                                                                                                                                                    99 AA; 10976 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99 AA; 10900 MW;
                                                                                                                                                                                                                                                                                                                                95.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 93.8%;
Best Local Similarity 75.0%;
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                               Conservative
EMBL; Z48479; G683717; -. EMBL; X79416; G872313; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; S67954; E118856; -. EMBL; S67956; G544997; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99
24
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      ||||:||:|||
| EICADPKEKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                           73 EICAEPKOKWVO 84
                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 94114084.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SCYA8 OR MCP2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MCP2_BOVIN
Q09141;
                                                                                                                                                                                                                                     DISULFID
DISULFID
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Matches
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US-09-150-813-65.rsp

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71 EICADPKKKWVQ 82
                                          1 EICADPKEKWVQ 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
JENKINS N.A., LIN G.-S., KAT2 H., LICHTMAN A., COPELAND N.G., KOPF M.,
GUTIERREZ-RAMOS J.-C.;
                                                                                                                                                                                                                                                                                                 ROTHENBERG M.E., LUSTER A.D., LEDER P.; "Murine eotaxin: an eosinophil chemoattractant inducible in endothelial cells and in interleukin 4-induced tumor suppression."; PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   *Mouse eotaxin expression parallels eosinophil accumulation during lung allergic inflammation but it is not restricted to a Th2-type
                                                                                                                                                                                              MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL; INFLAMMATORY RESPONSE.
                                                                                                                    01-FEB-1996 (REL. 33, CREATED)
01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
15-UTL-1998 (REL. 36, LAST ANNOTATION UPDATE)
EQTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    F85A96BC CRC32;
                                                                                      97 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EOTAXIN.
                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=LUNG;
MEDLINE; 96158746.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10893 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL: U26426, G995911; -.
EMBL: U40672; G1113937; -.
MGD; MGI:103576; SCYALI.
PROSITE: PS00472; SMALL_CYTO
PFAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C-C) (CHEMOKINE CC).
                                                                                         STANDARD;
 84
                 ::|||||:|||||
1 EICADPKEKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              P80098; 1NCV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97 AA;
                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
73 DVCADPRQKWVQ
                                                                                                                                                                                                                                                                                       MEDLINE; 96004658.
                                                                        LT 6
EOTA_MOUSE
P48298;
                                                                                                                                                                                                                                                                           TISSUE=LUNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: IN RESEPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN DIRECTLY PROMOTES THE ACCUMULATION OF EDSINOPHILS, A PROMINENT FEATURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).
-!- SUBCELLULAR LOCATION: EXTRACELULAR.
-!- PIN: O-GLYCOSYLATED (PROBABLE).
-!- FIN: O-GLYCOSYLATED (PROBABLE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                       EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C., FLANAGAN B.F.;
                                                                                                                                                                                                                                                                                                                   SUBMITTED (DEC-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                    P97545; 008780;
15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
DOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             POTENTIAL.
L -> S (IN REF. :
05B4ED45 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               104 AA.
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BY SIMILARITY.
BY SIMILARITY.
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97 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P80098; 1NCV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10851 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                92.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; U96637; G2098785; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; Y08358; E274141; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C-C) (CHEMOKINE CC).
  STANDARD;
                                                                                                                                                (RAT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              71 EICADPKKKWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 EICADPKEKWVQ 12
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                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              97 AA;
                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                   RATIUS NORVEGICUS
                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MCP5_MOUSE
Q62401;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
EOTA_RAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
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Matches
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Gaps

; 0

1; Indels

Score 89; DB 1; Length 97; Pred. No. 3.55e-08; 0; Mismatches 1; Indels

Similarity 91.7%; 11; Conservative

Query Match Best Local Similarity Matches 11; Conser

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PONATH P.D., OIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N., SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C., MACKAY C.R.;
                                                                                                                               "Human ectaxin is a specific chemoattractant for ecsinophil cells and provides a new mechanism to explain tissue ecsinophilia.";
                                                                                                                                                                                                                                                                        "Cloning of the human eosinophil chemoattractant, eotaxin. 
Spression, receptor binding, and functional properties suggest a 
mechanism for the selective recruitment of eosinophils.";
J. CLIN. INVEST. 97:604-612(1996).
                                                                                                                                                                                                                                                                                                                                                                                                            TIFFANY H.L., WURPHY P.M., YOSHIE O., "Molecular cloning of human eotaxin, an eosinophil-selective CC chemokine, and identification of a specific eosinophil eotaxin receptor, CC chemokine receptor 3.";
      HOMO SAPIENS (HUMAN).
EUKARXOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.
                                                                                                     GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OWNBEY T.R., LEDER P.,
                                                                                                                                                                                                                                                                                                                                                                                                 KITAURA M., NAKAJIMA T., IMAI T., HARADA S., COMBADIERE C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BIOL. CHEM. 271:7725-7730(1996).
                                                                                                                                                               NAT. MED. 2:449-456(1996).
                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
TISSUE=SMALL INTESTINE;
MEDLINE; 96205964.
                                                                                                                                                                                              SEQUENCE FROM N.A. MEDLINE; 96189937.
                                                                    SEQUENCE FROM N.A. MEDLINE; 96181758.
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                                                                                                                                                                                                                                                                                                                                         AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTES, AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE CHEMOKINE THAT SIGNALS THROOGH CCR2. INVOLVED IN ALLERGIC CHEMOKINE THAT SIGNALS THREPONSE TO PATHOGENS AND MAY PLAY A PLYOTAL ROLE DURING EARLY STAGES OF ALLERGIC LUNG INFLAMMATION.

-! SUBDINIT: HOMODIMER (BY SIMILARITY).

-! TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES, AND THYMUS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES, BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.

-! SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILX (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                     JIA G. Q., GONZALO J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C., WERSHIL B.K., GUTLERREZ-RAMOS J.C.;
"Distinct expression and function of the novel mouse chemokine monocyte chemotactic protein-5 in lung allergic inflammation.";
J. EXP. MED. 184:1939-1951(1996).
                                                                                                                                                                                                                                                                              "Murine monocyte chemoattractant protein (MCP)-5: a novel CC chemokine that is a structural and functional homologue of human
                           MUS MUSCULUS (MOUSE).
EUTARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MONOCYTE CHEMOTACTIC PROTEIN 5.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                   SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHARO I.F.,
LUSTER A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 89; DB 1; Length 104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. 3.55e-08;
0; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08FA6C35 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                            J. EXP. MED. 185:99-109(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              104 AA; 11659 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; U50712; G1477582; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity 100.0%;
Matches 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MGD; MGI:108224; SCYA12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS00472; SMALI
PFAM; PF00048; 118; 1.
HSSP; P13500; 1DOL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        U66670; G1881583
                                                                                                                                                                                                                SEQUENCE FROM N.A. MEDLINE; 97149438.
                                                                                           SEQUENCE FROM N.A.
                SCYA12 OR MCP5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
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CROMP M.P., RAJARTHNAM K., KIM K.S., CLARK-LEWIS I., SYKES B.D.;
"Solution structure of eotaxin, a chemokine that selectively recruits
"Solution structure of eotaxin, a chemokine that selectively recruits
BIOCHEMISTRY 37:11670-116788(1998).
-! FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
DIRECTLY PROMOTES THE ACCUMINATION OF EOSINOPHILS, A PROMINENT
FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
-! SUBCELLULAR LOCATION: EXTRACELLULAR.
-! PIM : O-GLYCOSYLATED (PROBABLE).
-! NINUCTION: BY THY ALLPHA, IL-1-ALPHA AND INTERFERON GAMMA.
-! SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Genomic organization, complete sequence, and chromosomal location of the gene for human eotaxin (SCYAll), an eosinophil-specific {\tt CC}
                                                    BARTELS J., SCHLUETER C., RICHTER E., NOSO N., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.;
"Human dermal fibroblasts express ectaxin: molecular cloning, mRNA expression, and identification of eotaxin sequence variants.";
BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genomic organization, sequence, and transcriptional regulation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE; 97445071.
HEIN H., SCHLUETER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
                                                                                                                                                                                                                                                                                                                                                                                GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N., MORTON C.C., LUSTER A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMUN. 237:537-542(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENOMICS 41:471-476(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the human ectaxin gene. BIOCHEM. BIOPHYS. RES.
                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                TISSUE=PLACENTA;
MEDLINE; 97312708.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                              96374440.
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TISSUE-FORESKIN;
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                              MEDLINE;
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Gaps

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EGTA\_HUMAN STANDARD; PRT; 97 AA.
P51671; P50877; Q92490; Q92491;
D1-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
EQUAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).

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RESULT
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MEDLINE; 92181448.
WEMPE F., EINSPANIER R., SCHEIT K.H.;
"Characterization by cDNA cloning of the mRNA of a new growth factor from bovine seminal plasma: acidic seminal fluid protein.";
BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1).";
DNA CELL BIOL. 10:671-679(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1A PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOVINAE; BOS.
                                                                                                                                                                                                                                                                                                                                                                                   ó
                                                                                                                                                                                                                                                                                                                                                                                   1; Indels
                                                                                                                                                                                                                                                                                                                                                              Length 97;
                                                                                                                                                                                                                                 EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL; INFLAMMATORY RESPONSE; POLYMORPHISM; 3D-STRUCTURE.
                                                                                                                                                                                                                                                                                              L -> P (IN CLONE 34).
A -> T (IN CLONE 53).
R -> S (IN CLONE 34).
K -> R (IN CLONE 53).
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                                                                                                                                                                                                                                                                                                                                                               Score 88;
                                                                                                                                                                                                                                                                 EOTAXIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE-SEMINAL PLASMA;
MEDLINE; 92096117.
WEMPE F., HENSCHEN A., SCHEIT K.H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                          Pred.
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                                                                                                                                                                                                                                                                                                                                         10732 MW;
                                                                                                  EMBL; U46573; G1280141; -...
EMBL; U34780; G1185440; -...
EMBL; D49372; G155241; -...
EMBL; Z69291; E221070; -...
EMBL; Z75668; E251275; -...
EMBL; Z75669; E251275; -...
EMBL; Z75669; E251258; -...
EMBL; Z92709; E329504; -...
                                                                                                                                                                                                                                                                                                                                                              91.7%;
83.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEMINAL FLUID PROTEIN).
(CHEMOKINE CC)
                                                                                                                                                                                                            PFAM; PF00048; i18; 1.
PDB; 2EOT; 11-NOV-98.
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97
57
73
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| EICADPKEKWVQ 12
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Matches 10; Conser
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                                                                                                                                                                                                                                                                                                                                         97 AA;
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P28291;
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                                                                                                                            NEUTROPHILS.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MATSUMOTO Y., MOHAMED A., ONODERA T., KATO H., OHASHI T.,
GOTISUKA R., TSUJIMOTO H., HASEGAWA A., FURUSAWA S., YOSHIHARA K.,
ISHIKAWA J., HOTTA K., SUZUKI K., HIROTA Y.;
"MOLECULAR Cloning and expression of canine interleukin 8 cDNA.";
CYTOKINE 6:455-461(1994).
WEMPE F., KUHLMANN J.K., SCHEIT K.H.; "Characterization of the bovine monocyte chemoattractant protein-1
                                                                                                       -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MONOCYTE CHEMOTACTIC PROTEIN 1A. PYRROLIDONE CARBOXYLIC ACID (BY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 99;
                                                                           BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 88; DB 1; L
Pred. No. 6.34e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
C8F5821D CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; 118; 1. HSSP; P13500; 1DON.
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STRAIN-MONGREL; TISSUE-JUGULAR VEIN;
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INTERLEUKIN-8 PRECURSOR (IL-8)
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83.3%;
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75
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1 EICADPKEKWVQ 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIR; A39296; A39296.
PIR; JC2336; JC2336.
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nes 10; Conser
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SEQUENCE
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TISSUE=LUNG;
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DISULFID
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0
                                                                                                              MEDLINE, 97230298.

STRAUBINGER R.K., STRAUBINGER A.F., HARTER L., JACOBSON R.H.,
CHANG Y.-F., SUMMERS B.A., ERB H.N., APPEL M.J.;

Borrelia burgdorferi migrates into joint capsules and causes an upregulation of interleukin-8 in synovial membranes of dogs
regulation of interleukin-8 in synovial membranes of dogs
INFECT. IMMUN. 55:1273-1285(1997).

-I-FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INT-AMMATORY STIMULUS.
                                                                                                                                                                                                                                                         -!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; CAPRINAE; OVIS
MEDLINE; 95114148.
KUKIELKA G.L., SMITH W.C., LAROSA G.J., MANNING A.M.,
MENDOZA L.H., DALY T.J., HUGHES B.J., YOUKER K.A., HAWKINS H.K.,
MICHAEL L.H., ROT A., ENTMAN M.L.;
"Interleukin-8 gene induction in the myocardium after ischemia and
reperfusion in vivo.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE: 95121931.
LEGASTELOIS I., GRENLAND T., ARNAUD P., MORNEX J.F., CORDIER G.;
"Sequencing of the ovine interleukin-8-encoding cDNA using the polymerase chain reaction.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 87; DB 1; Length 101;
Pred. No. 1.13e-07;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY.
7C49D62D CRC32;
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INTERLEUKIN-8.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                     EMBL; D28772; G517100; -.
EMBL; D14285; G475152; -.
EMBL; G10308; G607814; -.
EMBL; AF048717; G293472; -.
PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
                                                                      CLIN. INVEST. 95:89-103(1994).
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ilarity 83.3%;
Conservative
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101
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HSSP; P10145; 11KL.
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                                                                                          SEQUENCE FROM N.A.
                                                                                                        STRAIN-BEAGLE;
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                                                                                                                                                                                                                                                                                                                                                                             -!- SUBUNIT: HOMODIMER.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IL8_PIG STANDARD; PRT; 103 AA.
P26894; P22951;
01-AUG-1991 (REE. 19, CREATED)
01-AUG-1992 (REE. 23, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
INTERLEUKIN-8 PRECURSOR (IL-8) (ALVEOLAR MACROPHAGE CHEMOTACTIC FACTOR
                                                                                                                                                  "Cloning, sequencing, expression and inflammatory activity in skin of ovine interleukin 8.";
IMMUNOL. CELL BIOL. 72:398-405(1994).
-!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS, BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN RESPONSE TO AN INFLAMMATORY STIMULUS.
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ARTIODACTYLA; SUIFORMES; SUINA; SUIDAE; SUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LIN G., PEARSON A.E., SCAMURRA R.W., ZHOU Y., BAARSCH M.J., WEISS D.J., MURRAUGH M.P.;
"Regulation of interleukin-8 expression in porcine alveolar macrophages by bacterial lipopolysaccharide.";
J. BIOL. CHEM. 269:77-85(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 87; DB 1; Length 101; Pred. No. 1.13e-07; 1; Mismatches 1; Indels
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                                                                                                                       SEOW H.F., YOSHIMURA T., WOOD P.R., COLDITZ I.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BY SIMILARITY.
INTERLEUKIN-8.
BY SIMILARITY.
BY SIMILARITY.
3, 5A574527 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; S74436; G786591; -.
PIR; S42496; S42496.
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; il8; 1.
HSSP; P10145; IIKL.
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Matches 10; Conservative
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GENE 150:367-369(1994).
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| EICADPKEKWVQ 12
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                                                     SEQUENCE FROM N.A. MEDLINE; 95137691.
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LAGOMORPHA; LEPORIDAE; ORYCTOLAGUS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -i- INDUCTION: BY LIPOPOLYSACCHARIDE.
-i- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                            porcine alveolar macrophages.";
J. BIOL. CHEM. 266:8455-8463(1991).
-!- FUNCTION: IL-8 IS A CHEMOTACTIC FACTOR THAT ATTRACTS NEUTROPHILS,
BASOPHILS, AND T-CELLS, BUT NOT MONOCYTES. IT IS ALSO INVOLVED IN
NEUTROPHIL ACTIVATION. IT IS RELEASED FROM SEVERAL CELL TYPES IN
RESPONSE TO AN INFLAMMATORY STIMULUS.
               GOODMAN R.B., FOSTER D.C., MATHEWES S.L., OSBORN S.G., KUIJPER J.L., FORSTROM J.W., MARTIN T.R.;
"Molecular cloning of porcine alveolar macrophage-derived neutrophil anotactic factors I and II; identification of porcine IL-8 and another intercrine-alpha protein.";
BIOCHEMISTRY 31:10483-10490(1992).
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                                                                                                                                                                                                                                                                                                              GOODMAN R.B., FORSTROM J.W., OSBORN S.G., CHI E.Y., MARTIN T.R.; "Identification of two neutrophil chemotactic peptides produced by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 87; DB 1; Length 103; Pred. No. 1.13e-07;
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BY SIMILARITY.
RC -> CR (IN REF. 5).
K -> KK (IN REF. 2).
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01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROFEIN I PRECURSOR (MCP-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- TISSUE SPECIFICITY: ALVEOLAR MACROPHAGES.
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EMBL; X61151; G516197; --
EMBL; M93967; G1235612; --
EMBL; M444253; A44253
PIR; A39819; A39819.
PROSTETE; PS00471; SMALL_CYTOKINES_CXC; 1.
HSSP; P10145; 11KL.
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Conservative
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93041741
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MCP1_RABIT
P28292;
                                                                                                                                                                                                                                                                                            MEDLINE;
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                                                                                                                                                                                                                                                       -1- SUBGNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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Molecular cloning and posttranscriptional regulation of macrophage inflammatory protein-1 alpha in alveolar macrophages.";
BIOCHEM. BIOPHYS. RES. COMMUN. 211:289-295(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
                                                                                                                                                                                                      -! - FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-0CT-1996 (REL. 34, CREATED)
01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA PRECURSOR (MIP-1-ALPHA).
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RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 95238980.
SHANLEY T.P., SCHMAL H., FRIEDL H.P., JONES M.L., WARD P.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                YOSHIMURA T., YUHKI N.;
"Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit. cDNA cloning and their expression in spleen cells.";
J. IMMUNOL. 146:3483-3488(1991).
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PFAM; PF00048; i18; 1. 
HSSP; P13500; 1DON.
SEQUENCE FROM N.A.
STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
MEDLINE; 91225489.
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STRAIN=LONG EVANS; TISSUE=LUNG;
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Best Local Similarity 90.9%;
Matches 10; Conservative
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STRAIN=CD-1; TISSUE=LUNG;
MEDLINE; 95298037.
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55
112
125 AA;
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                                                                                            MEDLINE; 9618305.

X MEDLINE; 9618305.

X MAKAGAWA H., SHIDTA S., TAKANO K., SHIBATA F., KATO H.; MEDLINE; 9618305.

T "CYCOKING-induced neutrophil chemoattractant (CINC)-2 alpha, a novel member of rat GRO/CINGs, is a predominant chemokine produced by lipopolysaccharide-stimulated rat macrophages in culture.";

L BIOCHEM. BLOPHYS. RES. COMMUN. 220:945-948(1996).

- !- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOKINETIC PROPERTIES.

- I- FUNCTION: MONOKINE WITH INFLAMMATORY AND CHEMOTACTIC ACTIVITY FOR MONOCYTEDS, NEUTROPHILS, ESGINOPHILS, BASOPHILS, AND LYMPHOCYTES. REQUIRED FOR LUNG TNF-ALPHA PRODUCTION, NEUTROPHIL RECRUITMENT AND SUBSEQUENT LUNG INJURY AND MAY FUNCTION AS AN AUTOCRINE MEDIATOR FOR THE MARCHARGE PRODUCTION OF TNF-ALPHA WHICH IN TURN UP-REGULATES VASCULAR PRODUCTION MOLECULES REQUIRED FOR NEUTROPHIL INFLUX. THIS PROTEIN
                                                                                                                                                                                                                                                                                                                                                                         BINDS HEPARIN.
INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; HEPARIN-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MACROPHAGE INFLAMMATORY PROTEIN 1-ALPHA.
"Role of macrophage inflammatory protein-1 alpha (MIP-1 alpha) in acute lung injury in rats.";
J. IMMUNOL. 154:4793-4802(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 86; DB 1; Length 92;
Pred. No. 2.01e-07;
1; Mismatches 1; Indels
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BY SIMILARITY.

A -> T (IN REF. 2).

C -> W (IN REF. 2 AND 3).

F48CF89F CRC32;
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PFAM; PF00048; i18; 1.
HSSP; P13236; 1HUN.
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92
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10335 MW;
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Best Local Similarity 83.3%;
Matches 10; Conservative
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92 AA;
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Search completed: Fri Feb 4 17:39:37 2000 Job time : 6 secs

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Gaps

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protein - protein database search, using Smith-Waterman algorithm
(TM)
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1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7 8:part8 9:part9 10:part10 11:part11 12:part12 13:part13 14:part14 15:part15 16:part16 17:part17 18:part18 19:part14 20:part20 21:part21 22:part22 23:part23 24:part24 25:part25 26:part26 27:part27 28:part28 29:part29 30:part30 31:part31 32:part32 33:part33 33:part39 33:part39
                                                                                 Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            170751 seqs, 21266608 residues
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(1-12) from US09150813.pep
96
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Listing first 45 summaries
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Statistics: Mean 18.485; Variance 66.275; scale 0.279

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

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|                                                                         | Length DB                               | TD CT  | Description           | Pred. No. |
| 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                   | 71 26                                   | W22675 | Drol3+ chemokine beta | 1.33e-02  |
| 00000000000000000000000000000000000000                                  | 75 31                                   | W56690 | Chemokine MCP-4 prote | 1.33e-02  |
| 00000000000000000000000000000000000000                                  | 75 26                                   | W22673 | Bac 3 chemokine betal | 1.33e-02  |
| 00000000000000000000000000000000000000                                  | 77 26                                   | W22672 | Bac 2 chemokine betal | 1.33e-02  |
| 000000eeee                                                              | 79 26                                   | W22674 | Droll/2 chemokine bet | 1.33e-02  |
|                                                                         | 82 24                                   | W17665 | Stem cell mobilising  | 1.33e-02  |
|                                                                         | 82 26                                   | W22671 | Bac 1 chemokine betal | 1.33e-02  |
|                                                                         | 98 31                                   | W56087 | Human monocyte chemoa | 1.33e-02  |
| <br>                                                                    | 98 26                                   | W22670 | Human chemokine betal | 1.33e-02  |
| 11 96 100.0<br>3 93 96.9<br>4 93 96.9<br>5 93 96.9                      | 98 28                                   | W30191 | Monocyte chemotactic  | 1.33e-02  |
| 6.5 4.3.2<br>9.9 9.9 9.0<br>9.9 9.0 9.0<br>9.0 9.0 9.0                  | 98 17                                   | R93087 | Human chemokine beta- | 1.33e-02  |
| .4 93 96.9<br>.4 93 96.9<br>.5 93 96.9                                  | 66 24                                   | W13598 | Monocyte chemoattract | 2.71e-02  |
| .5 93 96.9                                                              | 67 24                                   | W13599 | Monocyte chemoattract | 2.71e-02  |
| 93 96.9                                                                 | 68 24                                   | W13597 | Monocyte chemoattract | 2.71e-02  |
| 0 00                                                                    | 69 14                                   | R87678 | des(2-8) MCP-1.       | 2.71e-02  |
| מיסה הה סי                                                              | 69 24                                   | W13596 | Monocyte chemoattract | 2.71e-02  |

| MCF.  Macrophage chemoattra 2.71e-02 (3-Ala) MCP-1 Peptide from human g1 2.71e-02 (24-Arg) MCP-1. Monocyte chemotactic 2.71e-02 Amature human monocyte 2.71e-02 (28-Asp) MCP-1. (28-Asp) MCP-1. (28-Asp) MCP-1. (28-Asp) MCP-1. (28-Asp) MCP-1. (28-Asp) MCP-1. (29-Asp) MCP-1. (29-Contact Chemotact Chemotac                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | RESULT 1  TO W12675 standard; Protein; 71 AA.  AC W2575;  M12675 standard; Protein; 71 AA.  M26775;  M27675;  M27675;  M27675;  M37675;  M37675;  M37675;  M37675;  M37675;  M37675;  M37675;  M37676;  M37676;  M37676;  M37676;  M37676;  M37676;  M37676;  M376776;  M376776;  M376776;  M376776;  M376776;  M376776;  M37776;  M37776;  M37776;  M37776;  M37776;  M37776;  M37776;  M377776;  M37776;  M377776;  M37776;  M37776;  M37776;  M37776;  M37776;  M37776;  M377776;  M37776;  M37776;  M377776;  M3777776;  M3777776;  M3777776;  M3777776;  M3777776;  M37777776;  M37777776;  M377777776;  M3777777776;  M377777777777777777777777777777777777                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| 5 R28660<br>30 W40175<br>14 R87677<br>1 P90292<br>14 R87676<br>14 R87680<br>11 W11131<br>10 R53398<br>11 R87675<br>11 R87675<br>12 W40174<br>13 R70800<br>2 P95387<br>2 R06398<br>31 W56088<br>31 W56088<br>31 W56088<br>31 W56088<br>31 W56088<br>31 W73915<br>14 R73915<br>15 R75580<br>2 W44721<br>2 R06398<br>31 R73915<br>31 R778915<br>31 R778915<br>31 R778915<br>31 R778915<br>31 R778915<br>31 R778915<br>31 R778915<br>32 W14990                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | in; 71 AA.  try)  0 or monocyte che 0; Cx betal0; trs is autoimmune dis lasis; neurodeget lasis; neurodeget lasis; neurodeget lasis; neurodeget lasis; neurodeget lasis; neurodeget lon; monocyte che 3+ variant.  cr INC.  pplebaum E, Li H, hemokine beta 4 e treat tumours, au treat tumours, au treat tumours, au nets deficient in treat leukaemia, not reduce excess a neutoimmune di d neurodegeneratis, reat leukaemia, ns, autoimmune di d neurodegeneratis, reatlo can be u expressing the re nist activity. Ti liis, autoimmune, liicosis, sarcoid ation and atheros es encoding simi.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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Matches
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   Whis yelly 1984/Jule.

The chemokine MCP-4 receptor - for identifying agonists or antagonists which can be used for treating e.g. infections, allergic PT antagonists which can be used for treating e.g. infections, allergic PT and asthmatic reactions, atherosclerosis and arthritis

Disclosure; Fig 2; 25pp; English.

CC This is the chemokine MCP-4 sequence that can be used in screening cereptor agonists can be identified by contacting a compound with MCP-4 receptor and measuring the change in a functional response or a second concessory system associated with the receptor. MCP-4 receptor is expressed on the surface of a host receptor in combination with the chemokine MCP-4 which may be labelled or unlabelled. The MCP-4 creceptor is expressed on the surface of a host cell or in a membrane or preparation and is used in the form of the isolated protein. It is prepared by transfecting a mammalian cell line with an expression vector comprising a nucleic acid sequence encoding the MCP-4 receptor, and culturing the cell ine in a culture medium. Susceptibility to disease states associated with abnormal expression of the MCP-4 receptor can be contuined using MCP-4, MCP-3, RANTES, MCP-1 or ectaxin. The dentified using MCP-4, MCP-3, RANTES, MCP-1 or ectaxin. The comprisits and antagonists identified can be used for treating disease states associated with the MCP-4 and/Or MCP-3, in a sample taken of from a patient. Neutralising antibodies to the MCP-4 receptor can be states associated with the MCP-4 and/Or MCP-3, in a sample case states associated with the MCP-4 and/Or MCP-3, in a sample case states associated with the MCP-4 and/Or MCP-3, in a sample case states associated with the MCP-4 and/Or MCP-3, in a sample case states associated with the MCP-4 and/Or MCP-3, in a sample case of artising from viral, bacterial and parasital infection, allergic and asthmatic reactions, atheroscialerosis and arthritis. The products can also be used for treating and asthmator of the MCP-4 and/Or MCP-3 and asthmatic reactions, and also produ
                                                                                      ö
                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                             MCP-4; MCP-4 receptor; antagonist; agonist; inflammatory disease; viral; bacterial; parasite; infection; allergic reaction; asthmatic; atherosclerosis; arthritis; chemokine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                19-MAR-1998 (first entry)
Bac 3 chemokine betal0 or monocyte chemotactic protein 4 variant.
Human; chemokine betal0; Ck betal0; treatment; antagonist;
solid tumour; infection; autoimmune disease; asthma; antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
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Pred. No. 1.33e-02;
0; Mismatches 0; Indels
                                                    Length 71;
                                                                                    0; Indels
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                                                  Score 96; DB 26;
Pred. No. 1.33e-02;
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and for chromosome identification.
                                                                                                                                                                                                                                                                              Chemokine MCP-4 protein sequence.
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                                                                                                                                                                                                                        W56690 standard; Protein; 75 AA.
W56690;
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Best Local Similarity 100.0%;
Matches 12; Conservative
                                                    Query Match
Best Local Similarity 100.0%;
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                                                                                      12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                  28-AUG-1996; GB-017923
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27-AUG-1997; G02313.
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WO9809171-A1.
                  Seguence
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                                                                                      Matches
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Example 11; Fig 5: 83pp; English.

Example 11: Fig 5: 83pp; English.

The present sequence is human chemokine betal0 (Ck betal0) or monocyte chemotactic protein 4 (MoP-4) Bac 3 variant, which can be used to treat betalo and season of treat patients deficient in Ck betal0, while a Ck betal0 betal0 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, requlates haematopoiesis and generates antibodies. Labelled Ck betal0 can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and infectious diseases, allergies, prostaglandin dependent fever and be used to isolate genes encoding similar peptides, in gene therapy and for chromosome identification.
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The present sequence is human chemokine betal0 (CK betal0) or monocyte chemotexic protein 4 (MCP-4) Bac 2 variant, which can be used to treat patients deficient in CK betal0, while a CK betal0 antagonist can be used to reduce excessive levels of CK betal0. CK
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19-MAR-1998 (first entry)
Bac 2 chemokine betal0 or monocyte chemotactic protein 4 variant.
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fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4;
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(HUMA-) HUMAN GENOME SCI INC.
Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
Parmelee D, White J;
WPI; 97-435153/40.
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W22672 standard; Protein; 77 AA.
                                                                                                               Leukaemia; MCP-4; Bac 3 variant.
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23-FEB-1996; WO-U02598.
(HUMA-) HUMAN GENOME SCI INC.
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Best Local Similarity 100.0%;
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23-FEB-1996; U02598.
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WO9731098-A1.
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WO9731098-A1.
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The present sequence is human chemokine betal0 (Ck betal0) or monocyte chemotractic protein 4 (MCP-4) Drol1/2 variant, which can be used to treat patients deficient in Ck betal0, while a ck betal0 antagonist can be used to reduce excessive levels of Ck betal0. Ck betal0 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmue diseases. It also promotes wound healing, regulates haematopoiesis and generates c antibodies. Labelled Ck betal0 can be used to compension of the cells expressing the arceptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to creen compounds for (ant)agonist activity. The antagonist can be used to creen treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic benness, lung inflammation and atherosclerosis Ck betal0 cDNA can
                                                                promotes wound healing, regulates haematopoiesis and generates antibodies. Labelled CK betail can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to streat rheumatoid arthritis, autoimmune, chronic inflammatory or inflectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck betall cDNA can and for chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Droll/2 chemokine betail or monocyte chemotactic protein 4 variant. Human; chemokine betail or betail treatment; antagonist; solid tumour; infection; autoimmune disease; asthma; antibody; fibrotic disease; psoriasis; neurodegenerative disease; wound healing; haematopoiesis regulation; gene therapy; chromosome identification; monocyte chemotactic protein 4; leukaemia; MCP-4; Droll/2 variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Polypeptide encoding chemokine beta 4 and monocyte chemotactic protein 4 - useful to treat tumours, autoimmune disease, infection,
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betal0 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also
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Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH, Parneee D, White J;
Parneee D, White J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and for chromosome identification.
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W22674 standard; Protein; 79 AA.
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Best Local Similarity 100.0%;
Matches 12; Conservative
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19-MAR-1998 (first entry)
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23-FEB-1996; UO2598.
23-FEB-1996; WO-UO2598.
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increase resistance to infection

Claim 7; Page II-12; Apply English.

The present sequence represents a chemokine, CKbeta-10, which is capable of mobilising stem cells. The chemokine can be used therapeutically to of mobilising stem cells. The chemokine can be used therapeutically to stem cell mobilisation, optionally together with a colony stimulating factor or other hematorequiatory agent. It can be used wherever an increased level of haematopoietic cells is needed, e.g. to
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              increase the immune response to chronic infection (particularly bacterial or parasitic), to promote wound healing, in (transplant) patients with reduced bone marrow function as a result of immunosuppressive treatment or disease, and to provide more rapid regeneration of bone marrow after treatment for neoplastic or viral diseases. The induced stem cells may be harvested for subsequent return to the patient, optionally after they have been genetically manipulated to deliver a selected gene product (gene therapy). The cells may be
                                                                                                 16-DEC-1997 (first entry)
Stem cell mobilising chemokine CKbeta-10.
Haematopoletic cell; parasitic infection; colony stimulating factor;
Haematopoletic simmune response; bacterial infection; transplant;
wound healing; bone marrow; immunosuppression; regeneration;
neoplastic disease; viral disease; gene therapy; cytotoxic drug.
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19-MAR-1998 (first entry)
Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.
Bac 1 chemokine beta10 or monocyte chemotactic protein 4 variant.
Human; chemokine beta10; Ck beta10; treatment; antagonist;
solid tumour; infection; autoimmune disease; asthma; antibody;
fibrotic disease; psoriasis; neurodegenerative disease;
wound healing; haematopoiesis regulation; gene therapy;
chromosome identification; monocyte chemotactic protein 4;
leukaemia; MCP-4; Bac 1 variant.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ten new chemokine(s) able to mobilise stem cells – used where increased levels of haematopoietic cells are required, e.g. to
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Pred. No. 1.33e-02;
0; Mismatches 0; Indels
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Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH,
Parmelee D, White J;
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23-0CT-1996; U16959.
24-0CT-1995; US-006051.
(SMIX ) SMITHKLINE BEECHAM CORP.
Kreider BL, Li H, Pelus L, White JR,
WPI; 97-258956/23.
Ten new chemokine($) able to mobilise stem cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            co-administered with a cytotoxic drug.
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.T 6
W17665 standard; peptide; 82 AA.
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Best Local Similarity 100.0%;
Matches 12; Conservative
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23-FEB-1996; U02598.
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                                                                      W17665;
RESULT
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Gaps

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Score 90; D. ... Pred. No. 1.33e-02; Wilmatches 0; Indels

100.08;

Query Match

Best Local Similarity 100.0%; Matches 12; Conservative

53 eicadpkekwvg 64

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Monocyte chemoattractant proteins, MCP-4 and MCP-3 - used to develop products for treating e.g. cancers, infections, asthma, cystic fibrosis, rinitis, atherosclerosis or inflammatory bowel disease claim 8; Page 53: 106pp; English.

The present sequence represents human monocyte chemoattractant protein 4 (MCP-4). The MCP-4 and MCP-5 have activity in stimulating chemotactic activity. The MCP-4 and MCP-5 have activity in stimulating chemotactic activity. The MCP-4 and MCP-5 have activity in stimulating chemotactic lymphoma (e.g. Hodgkin's lymphoma), a plasmacytoma, a melanoma, a sarcoma, a tumour within the lung or gastrointestinal tract, or infectious disease such as AIDS or malaria. Antagonists to the proteins can be used for treating e.g. asthma, chronic obstructive pulmoary disease, cystic fibrosis, sinusitis, rhinitis, atherosclerosis, glomerulonephritis, multiple sclerosis, inflammatory bowel disease, carthritis or adult respiratory distress syndrome. Infections such as parasitic infections may also be treated with a molecule that inhibits
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              monocyte chemotactic protein 4 (MCP4) Bac I variant, which can be used to treat patients deficient in Ck betal0, while a Ck betal0 and antagonist can be used to reduce excessive levels of Ck betal10. Ck betal10 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, psoriasis and neurodegenerative diseases. It also promotes wound healing, requlates haematopoiesis and generates antibodies. Labelled Ck betal0 can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen compounds for (art)agonist activity. The antigonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and come marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck betal0 cDNA can be used to isolate genes encoding similar peptides, in gene therapy and for chromosome identification.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human monocyte chemoattractant protein 4.
Human; monocyte chemoattractant protein; MCP-4; MCP-5; chemokine;
immune response; cancer; AIDS; malaria; parasitic infection.
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The present sequence is human chemokine betal0 (Ck betal0) or
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Pred. No. 1.33e-02;
0; Mismatches 0; Indels
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Pred. No. 1.33e-02;
0; Mismatches 0; Indels
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WPI; 98-240080/21.
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ID W22670 standard; Protein; 98 AA.
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Matches 12; Conservative
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Local Similarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MCP-4 or MCP-5 expression.
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30-SEP-1996; US-027128.
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Claim 1, Fig 2; 81pp; English.

The present sequence is human chemokine betal0 (Ck betal0) or monocyte chemotractic protein 4 (McP-4), which can be used to treat patients deficient in Ck betal0, while a Ck betal0 antagonist can be used to reduce excessive levels of Ck betal0. Ck betal0 can be used to reduce excessive levels of Ck betal0. Ck betal0 can be used to treat leukaemia, solid tumours, chronic or opportunistic infections, autoimmune diseases, asthma, fibrotic diseases, poriasis and neurodegenerative diseases. It also promotes wound calling, regulates haematopoiesis and generates antibodies.

Labelled Ck betal0 can be used to identify its cognate receptor, while cells expressing the receptor can be used to screen compounds for (ant)agonist activity. The antagonist can be used to treat rheumatoid arthritis, autoimmune, chronic inflammatory or infectious diseases, allergies, prostaglandin dependent fever and bone marrow failure, silicosis, sarcoidosis, hyper-eosinophilic syndrome, lung inflammation and atherosclerosis. Ck betal0 cDNA can be used to isolate genes encoding similar peptides, in gene therapy and for chromosome identification.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein 4 - useful to treat tumours, autoimmune disease, infection, asthma and fibrosis
            19-MAR-1998 (first entry)

Human chemokine betal0 or monocyte chemotactic protein 4.

Human; chemokine betal0, Ck betal0; treatment; antagonist;

Solid tumour; infection; autoimmune disease; asthma; antibody;

fibrotic disease; psoriasis; neurodegenerative disease;

wound healing; haematopoiesis regulation; gene therapy;

chromosome identification; monocyte chemotactic protein 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Polypeptide encoding chemokine beta 4 and monocyte chemotactic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       chemokine; inhibitor; antiinflammatory; atherosclerosis; Crohn's disease; arthritis; angiogenesis; tumour; metastasis; therapy; diagnosis; medical imaging.
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Monocyte chemotactic protein 5. MCP-5; human; macrophage;

Monocyte chemotactic protein 5; MCP-5; human; macrophage;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             , Match 100.0%; Score 96; DB 26; Length 98; Local Similarity 100.0%; Pred. No. 1.33e-02; nes 12; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                           23-FEB-1996; U02598.
23-FEB-1996; W0-002598.
23-FEB-1996; W0-002598.
Adams M, Alderson R, Applebaum E, Li H, Li Y, Lima SH, Parmelee D, White J;
WPI: 97-45153/40.
N-PSDB; T85029.
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/label= Sig_peptide
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                                                                                                                                                     leukaemia; MCP-4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98 AA;
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                                                                                                                             Claim 1; Page 36-37; 47pp; English.

This polypeptide comprises human macrophage-derived monocyte chemotactic protein-5 (MCP-5), a novel C-C chemokine. Its amino acid sequence was deduced from a cDNA clone (see T90880 and T90883) isolated from a human macrophage cDNA intransformed and T90881 isolated from a human macrophage cDNA clones a monocyte coll that is stably transformed or transfected with MCP-5 polynucleotide. Also claimed is a hybridoma that produces a monochonal antibody (MAb) that is specifically reactive with the mature MCP-5 (Or its analogues and fragments) is used to enhance the immune response in cases of rounds or infections, while its inhibitors (e.g. the MAb) are useful as anti-inflammatories in cases of e.g. arthritis and crohn's disease, also for treatment of atherosclerosis, angiogenesis and tumour growth (or metastasis). The MCP-5 inhibitors can possibly also be used to reduce the damaging effects of chemo- and radio-therapy on myeloid progenitor cells, and to inhibit replication of HIV. MCP-5 can also be used to identify the creeptors) are used to modulate MCP-5 agonists and antagonists.

Sequence 98 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human chemokine beta-10.

Human chemokine beta-10.

Chemokine beta-10: chemokine beta-4; Ck beta-10; Ck beta-4;

Chemokine beta-10: chemokine beta-4; Ck beta-10; Ck beta-4;

Chemokine beta-10: chemokine disease; psoriasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New chemoxine Ck(beta)-4 and -10 genes and polypeptide(s) - useful treat. e.g. leukaemia, solid tumours and auto-immune diseases Claim 19; Fig 2; 53pp. English.

A novel human chemoxine, Ck beta-10 (R93087), was identified as the product of a cDNA clone (717050) isolated from a 9-wk early the product of a cDNA library. The protein is structurally related to the chemoxine family. Recombinant Ck beta-10 can be obtd. By incorporating the cDNA into a vector and expression of the protein
                                                                                                   treatment of e.g. inflammation, atherosclerosis, angiogenesis and
                                                                                           Polynucleotide encoding monocyte chemotactic protein-5 - useful
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                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 96; DB 28; Length 98;
Pred. No. 1.33e-02;
0; Mismatches 0; Indels
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/label= Mat_protein
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R93087 standard; Protein; 98 AA.
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08-SEP-1994; ZA-006936.
(HUMA-) HUMAN GENOME SCI INC.
Adams MD, Li H;
WPI: 96-151145/15.
N-PSDB; T17050.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity 100.0%;
Matches 12; Conservative
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                      27-MAR-1996; US-622851.
(ICOS-) ICOS CORP.
Godiska R. Gray PW;
WPI: 97-48645/45.
N-PSDB; T90880.
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23-AUG-1994; U09484
           26-MAR-1997; U04898
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receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared with 75:1 for prior art mutant 7ND.
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in e.g. E. coli, COS or Sf9 cells. Ck beta-10 can be used to treat solid tumours, chronic infections, psoriasis, asthma and allergy, to regulate haematopoiesis, promote wound healing, and to inhibit angiogenesis. It can also be used to inhibit bone marrow stem cell colony formn. during chemotherapy.
                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Truncated monocyte chemoattractant profein-1; inhibitor; receptor binding; anti inflammatory; basophil; lymphocyte; allergy; chronic inflammatory disease; arthritis; arteriosclerosis;
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Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease, arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) lacks MCP-1 activity and inhibits receptor binding, useful as anti-inflammatory agent
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Pred. No. 2.71e-02;
....ma+rhes 0; Indels
                                                                                                                                                                                                                              Length 98;
                                                                                                                                                                                                                                                                                      0; Indels
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Monocyte chemoattractant protein analogue MCP-1 (10-76).
                                                                                                                                                                                                                           Score 96; DB 17; 1
Pred. No. 1.33e-02;
0; Mismatches 0
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W13599;
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Local Similarity 100.0%;
nes 12; Conservative
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Best Local Similarity 91.7%;
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19-JUN-1995, 152141.
19-JUN-1995; CA-152141.
(LEWI/) LEWIS I.
                                                                                                                                                                                                                                                                                                                                                           72 eicadpkekwvg 83
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CA2152141-A.
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                                                                                                                                                                Sequence
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Disclosure: Page 5; 27pp; English.

The present sequence represents an analogue, MCP-1 (11-76), of monocyte chemocattractent protein-1 (MCP-1). The analogue, which lacks the chemocattractent protein-1 (MCP-1), acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 creceptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases. The analogue competes more effectively with MCP-1 for binding diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably with 75:1 for prior art mutant 7ND.

Sequence 67 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence represents an analogue, MCP-1 (9-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the chemoattractant protein-1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-8 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, artreiosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably with 75:1 for prior art mutant 7ND.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Monocyte chemoattractant protein analogue MCP-1 (9-76).
Truncated monocyte chemoattractant protein-1; inhibitor:
receptor binding; anti inflammatory; basophil; lymphocyte; allergy; chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                        N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) lacks MCP-1 activity and inhibits receptor binding, useful as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 93; DB 24; Length 67;
Pred. No. 2.71e-02;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 93; DB 24; Length 68; Pred. No. 2.71e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W13597 standard; peptide; 68 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     96.98;
91.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      96.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 91.7%;
Matches 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                07-NOV-1997 (first entry)
19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
(LEWI/) LEWIS I.
                                                                                                                                                      anti-inflammatory agent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         41 eicadpkgkwvg 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                   Gong J, Lewis I;
WPI; 97-165844/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gong J, Lewis I;
WPI; 97-165844/16
                                         (LEWI/) LEWIS I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               lung disease.
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Gaps

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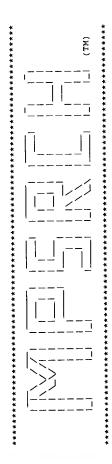
11; Conservative

Matches

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This particular protein protein (MCP-1) derive. - are capable of inhibiting the monocyte chemo-attractant activity of capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis claim 4; Page 11; 22pp; English.

Solution of the control of the control of the control of the chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28 Tyr by Leu and/or 30-Arg by Val. Preferred mutations by Phe; (3) substitution of 28 Tyr by aspartate; (2) substitution of 24 Arg by Phe; (3) substitution of 3-Asp by Ala; and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 acids 2-8. The present protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

The peptides can be used to prevent restenosis, e.g. in patients squence 69 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "amino acids 2-8 of the native protein have
been deleted between these residues"
4..29
5..45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .;
0
                                                                                                                                                                                                                                                                                                                                 des(2-8) MCP-1.
monocyte chemoattractant protein; MCP-1; mutant; restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 93; DB 14; Length 69;
Pred. No. 2.71e-02;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Search completed: Fri Feb 4 17:38:31 2000 Job time: 20 secs.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC.
Rollins B, Zhang YJ;
                                                                                                                                                                                    r 15
R87678 standard; protein; 69 AA.
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Best Local Similarity 91.7%;
Matches 11; Conservative
                                                                                                                                                                                                                                                                                                 21-FEB-1996 (first entry)
                                           42 elcadpkqkwvq 53
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            07-NOV-1994; U12874.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 95-215051/28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       disulfide_bond
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
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protein - protein database search, using Smith-Waterman algorithm MPsrch\_pp

Fri Feb 4 17:45:15 2000; MasPar time 2.53 Seconds 133.995 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-66 (1-12) from US09150813.pep 95 Description: Perfect Score:

1 EICADPTQKWVQ 12 Sequence:

PAM 150 Gap 15 Scoring table:

Post-processing: Minimum Match 0% Listing first 45 summaries

77977 seqs, 28268293 residues

Searched:

swiss-prot37 1:swissprot Database:

Mean 25.241; Variance 32.618; scale 0.774 Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

| Pred. No.           | 1.56e-09   | 4.97e-09             | 2.79e-08             | 2.79e-08             | 4.94e-08             | 1.54e-07   | 2.70e-07             | 2.70e-07             | 4.73e-07             | 8.27e-07             | 1.44e - 06           | 1.44e - 06           | 2.51e-06             | 7.54e-06               | 1.30e-05               | 3.85e-05               | 3.85e-05               | 3.85e-05               | 3.85e-05               | 6.58e-05               | 1.12e-04             | 1.12e-04               | 1.12e-04               |
|---------------------|------------|----------------------|----------------------|----------------------|----------------------|------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|----------------------|------------------------|------------------------|
| 1                   | Д          | Д                    | Ы                    | Д                    | Ы                    | Д          | Д                    | ሲ                    | ۵                    | Д                    | (EOS                 | EOS                  | EOS                  | OR                     | Д                      | os                     | S                      | 8                      | SO                     | OR                     | Д                    | OR                     | OR                     |
| Description         | -          | MONOCYTE CHEMOTACTIC | MONOCYTE CHEMOTACTIC | MÔNOCYTE CHEMOTACTIC | MONOCYTE CHEMOTACTIC | _          | MONOCYTE CHEMOTACTIC | MONOCYTE CHEMOTACTIC | MONOCYTE CHEMOTACTIC | MONOCYTE CHEMOTACTIC | EOTAXIN PRECURSOR (E | ECTAXIN PRECURSOR (B | EOTAXIN PRECURSOR (E | MACROPHAGE INFLAMMATOR | MONOCYTE CHEMOTACTIC P | EOTAXIN PRECURSOR (EOS | INTERLEUKIN-8 PRECURSO | INTERLEUKIN-8 PRECURSO | INTERLEUKIN-8 PRECURSO | MACROPHAGE INFLAMMATOR | MONOCYTE CHEMOTACTIC | MACROPHAGE INFLAMMATOR | MACROPHAGE INFLAMMATOR |
| ai                  | MCP3_HUMAN | MCP1_CAVPO           | MCP1_HUMAN           | MCP1_CANFA           | MCP1_PIG             | MCP2_BOVIN | MCP4_HUMAN           | MCP2_PIG             | MCPA_BOVIN           | MCP1_RABIT           | EOTA RAT             | EOTA MOUSE           | EOTA_HUMAN           | MIP4_HUMAN             | MCP5_MOUSE             | EOTA_CAVPO             | IL8_SHEEP              | IL8_CANFA              | IL8 PIG                | MI1A RAT               | MCPB BOVIN           | MI1B_HUMAN             | MI1A_HUMAN             |
| DB                  | Н          | ч                    | ۲-4                  | Н                    | -                    | ч          | Ч                    | Н                    | Н                    | Н                    | ٦                    | Н                    | Н                    | Н                      | Н                      | Н                      | 7                      | Н                      | 7                      | 7                      | Н                    | -                      | Н                      |
| Length              | 66         | 120                  | 66                   | 101                  | 66                   | 66         | 86                   | 66                   | 66                   | 125                  | 97                   | 97                   | 97                   | 68                     | 104                    | 96                     | 101                    | 101                    | 103                    | 92                     | 74                   | 92                     | 92                     |
| %<br>Query<br>Match | 100.0      | 97.9                 | 94.7                 | 94.7                 | 93.7                 | 91.6       | 90.5                 | 90.5                 | 89.5                 | 88.4                 | 87.4                 | 87.4                 | 86.3                 | 84.2                   | 83.2                   | 81.1                   | 81.1                   | 81.1                   | 81.1                   | 80.0                   | 78.9                 | 78.9                   | 78.9                   |
| Score               | 95         | 93                   | 90                   | 06                   | 68                   | 87         | 86                   | 86                   | 85                   | 84                   |                      | 83                   | 82                   | 08                     | 79                     | 77                     | 77                     | 77                     | 77                     | 76                     | 7.5                  | 75                     | 75                     |
| Result<br>No.       | 1          | ~                    | m                    | 4                    | · w                  | 9          | 7                    | · œ                  | 6                    | 10                   | 1                    | 12                   | 13                   | 14                     |                        | 16                     | 17                     | 18                     | 10                     | 200                    | 21                   | 22                     | 23                     |

| 1.12e-04<br>1.12e-04                             | 1.12e-04               | 1.91e - 04             | 1.91e - 04             | 3.24e-04               | 3.24e-04               | 3.24e-04               | 3.24e-04               | 3.24e-04               | 3.24e-04               | 5.47e-04               | 2.58e-03               | 4.31e-03               | 7.15e-03               | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TONSILLAR LYMPHOCYTE L<br>MONOCYTE CHEMOTACTIC P | MONOCYTE CHEMOTACTIC P | INTERLEUKIN-8 PRECURSO | INTERLEUKIN-8 PRECURSO | T-CELL SPECIFIC RANTES | T-CELL SPECIFIC RANTES | CHEMOKINE CC-1 PRECURS | MONOCYTE CHEMOTACTIC P | CHEMOKINE CC-3 PRECURS | MONOCYTE CHEMOTACTIC P | MACROPHAGE INFLAMMATOR | MACROPHAGE INFLAMMATOR | STROMAL CELL-DERIVED F | MACROPHAGE INFLAMMATOR | MACROPHAGE INFLAMMATOR | STROMAL CELL-DERIVED F | STROMAL CELL-DERIVED F | INTERLEUKIN-8 PRECURSO | INTERLEUKIN-8 PRECURSO | EMBRYO FIBROBLAST PROT | LYMPHOTACTIN PRECURSOR |
| MI10_HUMAN                                       | MCP1 RAT               | IL8 BOVIN              | IL8 RABIT              | SISD MOUSE             | SISD_RAT               | CCC1 HUMAN             |                        | CCC3 HUMAN             | MCP1 MOUSE             | MILB RABIT             | MI1A MOUSE             | SDF1 MOUSE             | MI1B_CHICK             | MI1B_RAT               | SDF1_HUMAN             | SDF1 FELCA             |                        | IL8 CAVPO              | EMF1 CHICK             | LIN_RAT                |
| -                                                |                        |                        | -                      | Н                      | -                      | -                      | ·                      | -                      |                        | -                      | -                      | Н                      | Н                      | ч                      | Н                      | Н                      |                        | -                      | -                      | 1                      |
| 60                                               | 148                    | 101                    | 101                    | 91                     | 92                     | 63                     | 67                     | 109                    | 148                    | 92                     | 92                     | 8                      | 06                     | 92                     | 69                     | 93                     | 66                     | 101                    | 103                    | 114                    |
| 78.9                                             | 0.00                   | 77.9                   | 77.9                   | 76.8                   | 76.8                   | 76.8                   | 76.8                   | 76.8                   | 76.8                   | 75.8                   | 72.6                   | 71.6                   | 71.6                   | 71.6                   | 71.6                   | 71.6                   | 71.6                   | 71.6                   | 71.6                   | 70.5                   |
| 75                                               | 7 7                    | 74                     | 7.4                    | 73                     | 7.                     | 7.                     | 73                     |                        | 7.7                    | 7.2                    | 9 0                    | 8                      | 89                     | 89                     | 800                    | 8                      | 0 00                   | 0 00                   | 0 00                   | 67                     |
| 24                                               | 3 6                    | 200                    | , c                    | 000                    | 0 6                    | 3 6                    | 3.5                    | ) (r                   | 3 0                    | , K                    | 3 6                    | 3.7                    | . 00<br>. m            | ) o                    | 0.4                    | 41                     | 4.2                    | 4.4                    | 4 0                    | 45                     |

### ALIGNMENTS

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PTM: O-GLYCOSYLATED.
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                      SPECTIOSCOPY.";
BIOCHEMISTRY 36:4412-4422(1997).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                        MEDLINE; 97263733.
MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.; "Determination of the three-dimensional structure of CC chemokine monocyte chemoattractant protein 3 by 1H two-dimensional NMR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                            KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.; "Structural characterization of a monomeric chemokine: monocyte chemoattractant protein-3.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MONOCYTE CHEMOTACTIC PROTEIN 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
115-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
110-MONCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
CHEMOATTRACTANT PROTEIN-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PYRROLIDONE CARBOXYLIC ACID.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         e 95; DB 1; Length 99;
I. No. 1.56e-09;
Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       T -> K (IN REF. 4).
MISSING (IN REF. 4).
7502E19C CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL: X72309; -; NOT_ANNOTATED_CDS.
EMBL: X71087; G288399; -.
EMBL: X71087; G288398; ALT_INIT.
EMBL: X71087; G288397; ALT_INIT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
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STRUCTURE BY NMR, AND SUBUNIT.
                                                                                                                                                      chemoattractant protein-3.";
FEBS LETT. 395:277-282(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24 PY 24 PY 259 BY 75 BY 29 PY 29 PY 20 PY
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les 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.08;
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MIM; 158106; -.
PROSITE; PS00472; SMAT
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S32222; S32222.
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CYTOKINE; CHEMOTAXI
                                        97053697
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Q08782;
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15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC FOTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC PROTEIN 1) PRECURSOR (MCP-1)
AND ACTIVATING FACTOR) (MCAP) (MONOCYTE SECRETORY PROTEIN JE)
(MONOCYTE CHEMOATTRACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
                                                                                                                                                                                                       -:- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                         "CDNA cloning of guinea pig monocyte chemoattractant protein-1 and expression of the recombinant protein.";
J. IMMUNOL. 150:5025-5033(1993).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 89165862.
REDUINE; 89165862.
FURUTANI Y., NOWDRA H., NOTAKE M., OYAMADA Y., FUKUI T., YAMADA M., LARSEN C.G., OPPENHEIM J.J., MATSUSHIMA K.;
"Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAE)",
BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; HYSTRICOGNATHI; CAVIIDAE; CAVIA.
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID (BY
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CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATO.
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                                                             SEQUENCE FROM N.A.
STRAIN=2; TISSUE=SPLEEN;
MEDLINE; 93267104.
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120 AA;
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Best Local Similarity
Matches 11; Conser
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LUBKOWSKI J., BUJACZ G., DOMAILLE P.J., HANDEL T.M., WLODAWER A.; "The structure of MCP-1 in two crystal forms provides a rare example of variable quaternary interactions."; NAT. STRUCT. BIOL. 4:64-69(1997).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ROBINSON E.A., YOSHIMURA T., LEONARD E.J., TANAKA S., GRIFFIN P.R.,
                                                                                                                                       "Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE."; FEBS LETT. 244:487-493(1989).
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GRONENBORN A.M., CLORE G.M.;
"Modeling the three-dimensional structure of the monocyte chemo-
attractant and activating protein MCAF/MCP-1 on the basis of the
solution structure of interleukin-8.";
PROTEIN ENG. 4:263-269(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo."; MOL. CELL. BIOCHEM. 126:61-68(1993).
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ROLLINS B.J., STIER P., ERNST T., WONG G.G.; "The human homolog of the JE gene encodes a monocyte secretory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SHYY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
                                                                                                                                                                                                                                                        SHYY Y.J., LI Y.S., KOLATTUKUDY P.E.; **Structure of human monocyte chemotactic protein gene and its
                                                                                                       YOSHIMURA T., YUHKI N., MOORE S.K., APPELLA E., LERMAN M.I.,
LEONARD E.J.;
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"Human monocyte chemoattractant protein-1 (MCP-1).";
ADV. EXP. MED. BIOL. 305:47-56(1991).
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                                                CELL. BIOL. 9:4687-4695(1989).
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MEDLINE; 89184525.
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KOLATTUKUDY P.E.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          chemoattractant protein-3.";
FEBS LETT. 395:277-287(1996).
FEBS LETT. 395:277-287(1996).
- PUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND BASOPHILS
- PUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTE ANTI-TUMOR
BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR
ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES
CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEDWATOID
ARTHRATIS OR ATHEROSOLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT
OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -:- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM.
-:- PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDUE CONVERTS IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT.
-:- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                MEDILINE; 94253189.
ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
ZHANG Y.J., RUTLEDGE B.J., ROLLINS B.J.;
Structure/activity analysis of human monocyte chemoattractant
protein-1 (MCP-1) by mutagenesis. Identification of a mutated protein
that inhibits MCP-1.mediated monocyte chemotaxis.";
J. BIOL. CHEM. 269:15918-15924(1994).
STRUCTURE BY NMR.
MEDLINE; 96234959.
HANDEL T.M., DOMALLE P.J.;
"Heteronuclear (1H, 13C, 15N) NMR assignments and solution structure of the monocyte chemoattractant protein-1 (MCP-1) dimer.";
BIOCHEMISTRY 35:6569-6584(1996).
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WEBER M., UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A., "Deletion of the NH2-terminal residue converts monocyte chemotactic protein 1 from an activator of basophil mediator release to an ecsinophil chemoattractant.";
J. EXP. MED. 183:681-685(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.: "Structural characterization of a monomeric chemokine: monocyte
                                                                                                                              EFFECT OF DELETION OF N-TERMINAL RESIDUES
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EMBL, M30816; G386961; JOINED.
EMBL, M31625; G386961; JOINED.
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EMBL; X14768; G34514; --
EMBL; M37719; G487124; --
EMBL; M28225; G338007; --
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1DON; 14-OCT-96.
1MCA; 15-OCT-94.
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MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID (BY

CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.

EMBL: U29653; G1144186; -.
PSOSITE, PSO0472; SMALL\_CYTOKINES\_CC; 1.
PFAM; PF00048; i18; 1.
HSSP; P13500; 1DON.

BY SIMILARITY

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KUMAR A.G., BALLANTYNE C.M., MICHAEL L.H., KUKIELKA G.L., YOUKER K.A., LINDSEY M.L., HAWKINS H.K., BIRDSALL H.H., MACKAY C.R., LAROSA G.J., ROSSEN R.D., SMITH C.W., ENTMAN M.L.;
"Induction of monocyte chemoattractant protein-1 in the small veins of the ischemic and reperfused canine myocardium.";
CIRCULATION 95:693-700(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -!- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR VEINS, AND INFLLTRATING LEURCCYTES.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                           MISSING: LOSS OF ACTIVITY.
MISSING: LOSS OF ACTIVITY.
MISSING: 90% REDUCTION IN ACTIVITY.
MISSING: 90% REDUCTION IN ACTIVITY.
N->A: 50% REDUCTION IN ACTIVITY.
N->E: 95% REDUCTION IN ACTIVITY.
R->F: 95% REDUCTION IN ACTIVITY.
S->O: 40% REDUCTION IN ACTIVITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM.

MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE REPERFUSED MYOCARDIUM.

REPERFUSED MYOCARDIUME.

-!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
                    SIGNAL; INFLAMMATORY RESPONSE; 3D-SIRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                           Y->D: LOSS OF ACTIVITY.
R->L: LOSS OF ACTIVITY.
D->L: 90% REDUCTION IN ACTIVITY.
                                                    MONOCYTE CHEMOTACTIC PROTEIN 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
CARNIVORA; FISSIPEDIA; CANIDAE; CANIS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                             1; Indels
                                                                   PYRROLIDONE CARBOXYLIC ACID
                                                                                                                                                                                                                                                                                                                                                              Length 99;
                                                                                                                                                                                                                                                                                                                                                                          Pred. No. 2.79e-08;
                                                                                                                                                                                                                                                                                                                             5355B695 CRC32;
                                                                                                                                                                                                                                                                                                                                                             DB 1;
                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         101 AA.
                                                                                                                   POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                           Score 90;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
TISSUE-JUGULAR VEIN ENDOTHELIAL;
MEDLINE; 97176620.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-OCT-1996 (REL. 34, CREATED)
01-OCT-1996 (REL. 34, LAST SECT
                                                                                                                                                                                                                                                                                                                           11025 MW;
                                                                                                                                                                                                                                                                                                                                                         94.78;
                                                                                                                                                                                                                                                                                                                                                                         Similarity 91.7%;
11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHEMOATTRACTANT PROTEIN-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
 PFAM; PF00048; i18; 1. CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCYA2 OR MCP1.
CANIS FAMILIARIS (DOG).
                                                                                                                                                                                                                                                                                                                                                                                                                                      73 EICADPKQKWVQ 84
                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                       99 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MCP1_CANFA
P52203;
                                                                                             DISULFID
CARBOHYD
                                                                               DISULFID
                                                                                                                                                                                                                                                                                                                       SEQUENCE
                                                                                                                             VARIANT
MUTAGEN
                                                             MOD_RES
                                                                                                                                                                                          MUTAGEN
MUTAGEN
                                                                                                                                                          MUTAGEN
                                                                                                                                                                            MUTAGEN
                                                                                                                                                                                                                          MUTAGEN
                                                                                                                                                                                                                                           MUTAGEN
MUTAGEN
                                                                                                                                                                                                                                                                                           MUTAGEN
                                                                                                                                                                                                                                                                          MUTAGEN
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                              SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                    Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTKE W., SCHEIT K.H.; "Porcine luteal cells express monocyte chemoattractant protein-1 (MCP-1): analysis by polymerase chain reaction and cDNA cloning."; BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZACH O.R.F.;
SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
                                                                                                                                                                                                                          ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                  EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; SUIFORMES; SUINA; SUIDAE; SUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                      Score 90; DB 1; Length 101;
Pred. No. 2.79e-08;
0; Mismatches 1; Indels
                                                                                                                                                                                           Length 101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                          01-NOY-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
                                                                                                                                                              A7075B14 CRC32;
                                                                                                                 SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ECC3AFB4 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS00472; SMALL_CYTOKINES_CC; 1. PFAM; PF00048; i18; 1. HSSP; P13500; iDON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY
                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                         101 AA; 11121 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10976 MW;
                                                                                                                                                                                        94.78;
                                                                                                                                                                                                       91.7%;
                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; Z48479; G683717; -. EMBL; X79416; G872313; -.
                                                                                                                               59
                                                                                                                                                                                                                                               73 EICADPKOKWVQ 84
                                                                                                                                                                                                                                                                         1 EICADPTOKWVQ 12
                                                                                                                                                                                                      Best Local Similarity
Matches 11; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 94183284.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                   SUS SCROFA (PIG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NEUTROPHILS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE-BRAIN;
                                                                                                                                                                                                                                                                                                                                MCP1_PIG
P42831;
                                                                                                                             DISULFID
                                                                                                                                             DISULFID
                                                                                                                                                         SEQUENCE
                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                            ö
                                                                                                                                                                                                                                                                                       -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HEPARIN-BINDING; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                            Gaps
                                                                                                                                                                                                                                                                 BOS.
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                           ;
                                                                                                                                                                                                                                      BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOVINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 2.
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE CHEMOATTRACTANT PROTEIN 4) (CK-BETAIO) (NCC-1).
SCYAI3 OR MCP4 OR NCC1.
                                                                                                                                                                    01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
MONOCYTE CHEMOTACLIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE CHEMOTACLIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE CHEMOATTRACTANT PROTEIN 2).
 Score 89; DB 1; Length 99; Pred. No. 4.94e-08; 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            54e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9BA2CD26 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              red. No. 1.54e-
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98 AA.
                                                                                                                                99 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PROSITE: PSO0472: SMALL_CYTOKINES_CC; 1.
PFAM: PF00048; 118, 1.
HSSP; P80098; 1NCV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 87;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred.
                                                                                                                                                          CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           34 59
35 75
99 AA; 10900 MW;
93.7%;
ilarity 83.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 91.6%;
75.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; S67954; E118856; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                             C-C) (CHEMOKINE CC).
                                                                                                                                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23
99
24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOKINE; CHEMOTAXIS;
                                                                                                                                             Q09141;
01-NOV-1995 (REL. 32,
                                                                                                                                                                                                                                                                                                                                                                        CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73 DVCADPKQKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 EICADPTOKWVO 12
                                                    73 EICAEPKOKWVO 84
                                                                            1 EICADPTOKWVO 12
             Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                           SCYA8 OR MCP2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MCP4_HUMAN
Q99616;
                                                                                                                                MCP2_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOD_RES
                                                                                                                   9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                          datches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -!- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND (FNPGGLA)MCP-4 ARE PRODUCED BY DIFFERENTIAL SIGNAL CLEAVAGE. (LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTORINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                      UGUCCIONI M., LOETSCHER P., FORSSMANN U., DEWALD B., LI H., LIMA S.H., LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
"Monocyte chemotactic protein 4 (MCP-4), a novel structural and functional analogue of MCP-3 and eotaxin.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POWER C.A., MEYER A., RISON S.C.G., GUYE-COULIN F., WELLS T.N.C.;
SUBMITTED (DEC-1997) TO EMBL/GENBANK/DDBJ DATA BARKS.
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, LYMPHOCYTES,
BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CCR2B AND CCR3 RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
WALL DURING THE DISEASE PROCESS OF ARTHEROSCLEROSIS. MAY PLAY A
ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
                                                                                                                                                                GARCIA-ZEPEDA E.A., COMBADIERE C., ROTHENBERG M.E., SARAFI M.N.,
LAAVISME F., HAMID Q., MURPHY P.M., LUSTER A.D.
LAAVISME F., HAMID Q., MURPHY P.M., LUSTER A.D.
"Human monocyte chemoattractant protein (MCP)-4 is a novel CC
chemokine with activities on monocytes, eosinophils, and basophils
induced in allergic and nonallergic inflammation that signals through
the CC chemokine receptors (CCR)-2 and -3.";
J. IMMUNOL. 157:5613-5626(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EXOGENOUS PATHOGENS.

-!- MASS SPECTROMETRY: MW-9314; MW_ERR=30; METHOD=MALDI; RANGE=17-98.

-!- MASS SPECTROMETRY: MW-8760; MW_ERR=30; METHOD=MALDI; RANGE=22-98.

-!- MASS SPECTROMETRY: MW-8755; MW_ERR=30; METHOD=MALDI; RANGE=24-98.

-!- INDUCTION: BY INTERLEUKIN-1 AND TNF-ALPHA.

-!- TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE, THYMUS, COLON, LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS SEEN IN THE PULMONARY ARTERY SMOOTH MUSCLE CELLS.

-!- THIS PROTEIN CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 97341179.
BERKHOUT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N., APPELBAUM E., REAFE T.J., BRAWNER M., MAKMAN J., FOLEY J.J., SCHILD D.B., IMBURGIA C., MACNULTY D., MATTHEWS J., O'DONNELL K., O'SHANNESY D., SCOTT M., GROOT P.H.E., MACPHEE C.; "Cloning, in vitro expression, and functional characterization of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   novel human CC chemokine of the monocyte chemotactic protein (MCP) family (MCP-4) that binds and signals through the CC chemokine receptor 28 ";
                         VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DANTE M., GIBSON A.;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A., AND SEQUENCE OF 17-98.
                         EUKARYOTA; METAZOA; CHORDATA; VERTEBRA
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . BIOL. CHEM. 272:16404-16413(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EXP. MED. 183:2379-2384(1996).
                      CHORDATA;
HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                SEQUENCE FROM N.A.
                                                                                                                                           MEDLINE; 97113354.
                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE; 96235049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE=FETAL;
                                                                                                                                                                                                                                                                                                                                                                                                TISSUE=FETAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=LUNG;
                                                                                                                       TISSUE-HEART
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                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Porcine luteal cells express monocyte chemoattractant protein-2 (MCP-2): analysis by cDNA cloning and northern analysis.";
BIOCHEM. BIOPHYS. RES. COMMUN. 205:148-153(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -!- SUBDNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHEMOTAXIS; SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                         SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŠEQUENCE FROM N.A.
MEDLINE; 95091716.
HOSANG K.K., KNOKE I.I., KLAUDINY J.J., WEMPE F.F., WUTTKE W.W.
                                                                                                                                                                                                                                                                               ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; SUIFORMES; SUINA; SUIDAE; SUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 2.
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                    MONOCYTE CHEMOTACTIC PROTEIN 4.
                                                                                                                                                                                                                                                                                                                                                                                                                01-OCT-1996 (REL. 34, CREATED)
10-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE CHEMOATTRACTANT PROTEIN 2).
                                                                                                                                                                   PYRROLIDONE CARBOXYLIC ACID.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                              1; Indels
                                                                                                                                                                                                                                                  Score 86; DB 1; Length 98; Pred. No. 2.70e-07;
                                                                                                                                                                                                           POTENTIAL.
DF52F6EC CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3Y SIMILARITY.
B7620BCF CRC32;
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BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                          99 AA.
                                                                                                                                                                                                                                                                              1; Mismatches
or send an email to license@isb-sib.ch).
                     EMBL; U46767; G1732123; --
EMBL; AC002482; G2340091; --
EMBL; X98306; E248571; --
MIM; 601391; --
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; Z48480; G683719; -.
PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
PFAM: PF00048; i18; 1.
HSSP: P80098; incv.
                                                                                                                                                                                                                       10986 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10903 MW;
                                                                                                                                                                                                                                                  90.5%;
                                                                                                                                                                                                                                                                 83.3%;
                                                                                                                                                                                                                                                                              10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                           PFAM; PF00048; 118; 1.
HSSP; P13500; 1DOL.
                                                                                                                                         23
24
24
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29
                                                                                                                       CYTOKINE; CHEMOTAXIS; SIGNAL 1 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                                         1 EICADPTQKWVQ 12
                                                                                                                                                                                                                                                                                                      72 EICADPKEKWVQ 83
                                                                                                                                                                                                                                                               Best Local Similarity
                                                                                                                                                                                                                       98 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99 AA;
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MCP2_PIG
P49873;
                                                                                                                                                                MOD_RES
DISULFID
                                                                                                                                                                                           DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CYTOKINE;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
TISSUE-SEMINAL PLASMA;
MEDLINE; 92181448.
"Characterization by CDNA cloning of the mRNA of a new growth factor from bovine seminal plasma: acidic seminal fluid protein.";
BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                          01-DEC-1992 (REL. 24, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN IA PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-SEMINAL PLASMA,
BEDLINE, 292064117.
WEMPE F. HENSCHEN A., SCHEIT K.H.;
"Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1).";
DNA CELL BIOL. 10:671-679(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WEMPE F., KUHLMANN J.K., SCHEIT K.H.; "Characterization of the bovine monocyte chemoattractant protein-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOVINAE; BOS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS.
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Score 86; DB 1; Length 99;
Pred. No. 2.70e-07;
"**emaiches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY).
BY SIMILARITY.
BY SIMILARITY.
C8F5821D CRC32;
                                                                                                                                                                                                                                                                                                                         99 AA.
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BMBL; M84602; G163395; -.
PIR; A39296; A39296.
PIR; JC2336; JC2336.
PROSITE; PS000472; SMALL_CYTOKINES_CC; 1.
PFRM; PF00048; il8; 1.
HSSP; P13500; lDON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL.
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                     Query Match 90.5%;
Best Local Similarity 83.3%;
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEMINAL FLUID PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      59
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                                                                                                                                                                                                 1 EICADPTOKWVO 12
                                                                                                                                       73 EVCADPQQKWVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
MEDLINE; 94338337.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                    LT 9
MCPA_BOVIN
P28291;
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CHAIN
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STEETE TEETERS
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                                                                                                                                                                                                                                                                                                                                      -i- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
                                                                                                                                                                                                                                                        YOSHIMURA T., TURKI N.;
Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit. cDNA cloning and their expression in spleen cells.",
J. IMMUNOL. 146:3483-3488(1991).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
0
                                ö
                                                                                                                                                                                      ORYCTOLAGUS CUNICULUS (RABBIT).
EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 84; DB 1; Length 125;
Pred. No. 8.27e-07;
0; Mismatches 1; Indels
                              1; Indels
           Length 99;
                                                                                                                                     01-DEC-1992 (REL. 24, CREATED)
01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
           Score 85; DB 1; LA Pred. No. 4.73e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL.
FBAC9D27 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BY SIMILARITY.
BY SIMILARITY.
POTENTIAL.
                                1; Mismatches
                                                                                                                  125 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE: PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P13500; 1DON.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             POTENTIAL.
                                                                                                                                                                                                                                        STRAIN-NEW ZEALAND WHITE; TISSUE-SPLEEN;
MEDLINE; 91225489.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                              LAGOMORPHA; LEPORIDAE; ORYCTOLAGUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           59 BY
75 BY
40 PO
55 PO
112 PO
13776 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EOTA_RAT STANDARD; F P97545; 008780; 15-JUL-1998 (REL. 36, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88.4%;
90.9%;
           vuery Match 89.5%;
Best Local Similarity 83.3%;
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity 90.9%;
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; M57440; G165470; -
                                                                                                                                                                                                                                                                                                                                                               C-C) (CHEMOKINE CC).
                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23
125
24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 ICADPTQKWVQ 12
                                                                         1 EICADPTOKWVO 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              74 ICADPKQKWVQ 84
                                                       73 ELCADPKOKWVO 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  125 AA;
                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                   MCP1_RABIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
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                                                                                                                           P28292:
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                                                                                                                                                                                                                                                                                                                                                                                                                      SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

-!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN

-!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THE SPROMINENT

-!- FRIURE OF ALLERGIC INFLAMMATORY REACTIONS (BY SIMILARITY).

-!- SUBCELLULAR LOCATION: EXTRACELLULAR.

-!- FTM: O-GLYCOSYLATED (PROBABLE).

-!- FTM: O-GLYCOSYLATED (PROBABLE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
EDTAXIN PRECURSOR (EDSINOPHIL CHEMOTACTIC PROTEIN).
RATTUS NORVEGICUS (RAT).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ROTHENBERG M.E., LUSTER A.D., LEDER P.; "Murine ectaxin: an ecsinophil chemoattractant inducible in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 83; DB 1; Length 97;
Pred. No. 1.44e-06;
0; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
                                                                                                                                                                                                                              WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C.,
                                                                                                                                                                                                                                                                                    SUBMITTED (DEC-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
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01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
ECTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN)
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BY SIMILARITY.
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Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C-C) (CHEMOKINE CC).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               71 EICADPKKKWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 EICADPTOKWVQ 12
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                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                  FLANAGAN B.F
                                                                                                                                                                                                                                                                                                                                                                                   TISSUE-LUNG;
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P48298;
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PONATH P.D., QIN S., RINGLER D.J., CLARK-LEWIS I., WANG J., KASSAM N., SMITH H., SHI X., GONZALO J.A., NEWMAN W., GUTIERREZ-RAMOS J.C.,

SEQUENCE FROM N.A. MEDLINE; 96189937.

MACKAY C.R.

"Cloning of the human eosinophil chemoattractant, eotaxin. Expression, receptor binding, and functional properties suggest a mechanism for the selective recruitment of eosinophils."; J. CLIN. INVEST. 97:604-612(1996).

MEDILING; JULYSOUS.
KITAUTRA M., NARAJIMA T., IMAI T., HARADA S., COMBADIERE C.,
TIFFANY H.L., WURPHY P.M., YOSHIE O.;
"Molecular cloning of human ectaxin, an eosinophil-selective CC chemokine, and identification of a specific eosinophil ectaxin receptor. CC chemokine receptor 3.";

TISSUE-SMALL INTESTINE; MEDLINE; 96205964.

SEQUENCE FROM N.A.

"Human eotaxin is a specific chemoattractant for eosinophil cells and provides a new mechanism to explain tissue eosinophilia."; NAT. MED. 2:449-456(1996).

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                                                                                                                STRAIN-C57BL/6J; TISSUE-LUNG; MEDLINE; 96158746. GONZALO J.A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J., JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPF M.,
                                                                                                                                                                                                                                                                                                                                                   IMMUNITY 4:1-14(1996).

-! FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN DIRECTLY PROMOTES THE ACCUMILATION OF EOSINOPHILS (A PROMINENT EARTONED DIRECTLY PROMOTES THE ACCUMILATION OF EOSINOPHILS (A PROMINENT LYMPHOCYTES, MACROPHAGES OR NEUTROPHILAR.) BUT NOT LYMPHOCYTES, MACROPHAGES OR NEUTROPHAR.

-! SUBCELLULAR LOCATION: EXTRACELLULAR.

-! TISSUE SPECIFICITY: EXPRESSED CONSTITUTIVELY IN THE THYMUS. EXPRESSION INDUCIBLE IN THE LUNG (TYPE I ALVECLAR EPITHELIAL CELLS), INTERPRENON-GAMMA AND LIPOPOLYSACCHARIDE (LPS).

-! SIMILARITY: BELOGGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
endothelial cells and in interleukin 4-induced tumor suppression."; PROC. NATL. ACAD. SCI. U.S.A. 92:8960-8964(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                          GUTIERREZ-RAMOS J.-C.; "Mouse eotaxin expression parallels eosinophil accumulation during lung allergic inflammation but it is not restricted to a Th2-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ..
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1,44e-06;
...hos 2; Indels
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BY SIMILARITY.
F85A96BC CRC32;
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Pred. No.
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PROSITE; PS00472; SMALL,
PFAM; PF00048; 118; 1.
HSSP; P80098; 1NCV.
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| EICADPTQKWVQ 12
                                                                                   SEQUENCE FROM N.A.
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RY REPRESENTATION OF THE PROPERTY OF THE PROPE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CRUMP W.P., RAJARATHNAM K., KIM K.S., CLARR-LEWIS I., SYKES B.D., "Solution structure of eotaxin, a chemokine that selectively recruits escinophils in allergic inflammation.";

EICHEMISTRY 37:11670-11678(1998).

- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN DIRECTLY PROMOTES THE ACCUMILATION OF EOSINOPHILS, A PROMINENT FRAURE OF ALLERGIC INFLAMMATORY REACTIONS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- PTM: O-GLYCOSYLATED (PROBABLE).
-!- INDUCTION: BY TNF-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genomic organization, sequence, and transcriptional regulation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 97445071.
HEIN H., SCHLUETER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
BARTELS J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the human eotaxin gene.";
BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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EUKARIOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; PRIMATES; CATARRHINI; HOMINIDAE; HOMO.

HOMO SAPIENS (HUMAN).

SCYA11

MEDLINE; 96181758. GARCIA-ZEPEDA E.A., ROTHENBERG M.E., OWNBEY T.R., LEDER P., LUSTER A.D.;

SEQUENCE FROM N.A. MEDLINE; 96181758.

"Genomic organization, complete sequence, and chromosomal location of the gene for human eotaxin (SCYAll), an eosinophil-specific  ${\tt CC}$ 

GENOMICS 41:471-476(1997).

chemokine.

TISSUE-PLACENTA;
MEDLINE; 97312708.
GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N.,
MORTON C.C., LUSTER A.D.;

SEQUENCE FROM N.A.

mRNA

BARTELS J., SCHUDETER C., RICHTER E., NOSO N., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.; "Human dermal fibroblasts express cotaxin: molecular cloning, m expression, and identification of ectaxin sequence variants."; BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).

SEQUENCE FROM N.A., SEQUENCE OF 60-65 AND 75-88, AND VARIANTS.

MEDLINE; 96374440.

receptor, CC chemokine receptor 3.7 J. BIOL. CHEM. 271:7725-7730(1996)

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SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              macrophage-inflammatory protein-1 alpha/LD78 alpha and chemotactic for T lymphocytes, but not for monocytes.";
J. IMMUNOL. 159:1140-1149(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
MACOPHAGE INFLAMMATORY PROTEIN UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1).
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TISSUE-AORTA, AND LUNG;

MEDLINE: 97376836.

HIESHIMA K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K.,

NAKAGAWA T., TSUBUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,

MIURA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;

"A novel human CC chemokine PARC that is most homologous to
                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                    Score 82; DD .,
Pred. No. 2.51e-06;
Pred. Transferbes 2; Indels
                                                                                                                                                                                               EOSINOPHIL, CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL; INPLAMMATORY RESPONSE; POLYMORPHISM; 3D-STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DISCUSSION OF SEQUENCE.
MEDLINE; 972,75308.
WHELLS T.N.C.75308.
"The chemokine information source: identification and
                                                                                                                                                                                                                                                                                L -> P (IN CLONE 34).
A -> T (IN CLONE 53).
R -> S (IN CLONE 34).
K -> R (IN CLONE 54).
; 6C0F3D98 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Macrophage inflammatory protein-3 and -4."; PATENT NUMBER US5504003, 02-APR-1996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             89 AA.
or send an email to license@isb-sib.ch).
                                                                                                                                                        PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                          EOTAXIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                                                                                                                                                                                                                         10732 MW;
                                                                                                                                                                                                                                                                                                                                                                     86.3%;
                                                                                                                                                                                                                                                                                                                                                                                  75.0%;
                          EMBL; U46573; G1280141; -. EMBL; U34780; G1185440; -. EMBL; D49372; G1552241; -.
                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                  EMBL; Z69291; E221070; --
EMBL; Z75668; E251275; --
EMBL; Z75669; E251258; --
EMBL; U46572; G2088509; --
                                                                                                                              Z92709; E329504; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
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97
73
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                                                                                                                                                                    PFAM; PF00048; il8; 1
PDB; 2EOT; 11-NOV-98.
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                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                            97 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LI H., RUBEN S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SCYA18 OR MIP4
                                                                                                                                            MIM; 601156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MIP4_HUMAN
P55774;
                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                        Query Match
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                                                                                                                                                                                                                                                                                      VARIANT
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                                                                                                                                                                                                                                                                                                                                VARIANT
                                                                                                                              EMBL;
                                                                                                                                                                                                                                             CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                    Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  J. EXP. MED. 185:99-109(1997).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS EOSINOPHILS, MONOCYTES, AND LYMPHOCYTES BUT NOT NEUTROPHILS. POTENT MONOCYTE ACTIVE
              expressed sequence tag databases.";
J. LEUKOC. BIOL. 61:545-550(1997).

-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT MONOCYTES OR GRANULOCYTES. MAY BE INVOLVED IN B CELL MIGRATION
INTO B CELL FOLLICLES IN LYMPH NOBES.

-!- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER LEVEL EXPRESSION IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NOBES,
                                                                                                                                                           -i- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GONZALO J.A., LLOYD C., KREMER L., LU L., MARTINEZ A.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Murine monocyte chemoattractant protein (MCP)-5: a novel CC chemokine that is a structural and functional homologue of human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 5 PRECURSOR (MCP-5) (MCP-1 RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WERSHIL B.K., GUTIERREZ-RAMOS J.C.; "Distinct expression and function of the novel mouse chemokine monocyte chemotactic protein-5 in lung allergic inflammation."; J. EXP. MED. 184:1939-1951(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MACROPHAGE INFLAMMATORY PROTEIN 4.
BY SIMILARITY.
BY SIMILARITY.
052AADC CRG32;
characterization of novel chemokines using the WorldWideWeb and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SARAFI M.N., GARCIA-ZEPEDA E.A., MACLEAN J.A., CHARO I.F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 89;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 80; DB 1; Li
Pred. No. 7.54e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                104 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P13236; 1HUN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRT;
                                                                                                                                                                                                                                                                                                                                                                         EMBL; AB000221; D1022520; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  89 AA; 9849 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       84.2%;
75.0%;
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                                                                                                                                                                                             C-C) (CHEMOKINE CC).
                                                                                                                                             THYMUS AND APPENDIX
                                                                                                                                                                                                                                                                                                                                                                                              EMBL; Y13710; E321838;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                :||||| ||||
1 EICADPTQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68 QICADPNKKWVQ 79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A. MEDLINE; 97149438.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 97079149.
JIA G.-Q., GONZALC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SCYA12 OR MCP5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LUSTER A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MCP5_MOUSE
Q62401;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CHEMOKINE)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
CHEMOKINE THAT SIGNALS THROUGH CCR2. INVOLVED IN ALLERGIC INFLAMMATION AND THE HOST RESPONSE TO PATHOGENS AND MAY PLAY A PLYOTAL ROLE DURING EARLY STRAGES OF ALLERGIC LUNG INFLAMMATION.

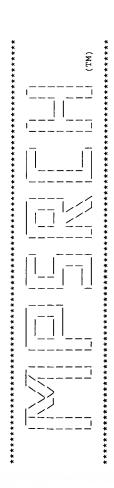
-!- SUBUNIT: HOWODIMER (BY SIMILARITY).

-!- TISSUE SPECIFICITY: PREDOMINANTLY EXPRESSED IN THE LYMPH NODES AND THYMOS. ALSO FOUND IN THE SALIVARY GLANDS CONTAINING LYMPH NODES, BREAST, HEART, LUNG, BRAIN, SMALL INTESTINE, KIDNEY AND COLON.

-!- INDUCTION: BY IFFN-GAMMA AND LIPOPOLYSACCHARIDE (LPS).

-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C.C.) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 79; DB 1; Length 104; Pred. No. 1.30e-05; 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                         SIGNAL; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BY SIMILARITY.
BY SIMILARITY.
OBFA6C35 CRC32;
                                                                                                                                                                                                                                                                                                                                          EMBL; U50712; G1477582; --
EMBL; U66670; G1881583; --
MGD; MGI:108224; SCYA12.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P13500; 1DOL.
CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATO!
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 22 RY
23 104 MOI
33 58 BY
34 74 BY
104 AA; 11659 MW; (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 83.2%;
Similarity 81.8%;
9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE
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   g
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Search completed: Fri Feb 4 17:45:21 2000 Job time : 6 secs.



Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Fri Feb 4 17:44:36 2000; MasPar time 3.60 Seconds 133.704 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-66 (1-12) from US09150813.pep 95 Title:

1 EICADPTQKWVQ 12 Description: Perfect Score: Sequence:

PAM 150 Gap 15 Scoring table:

122810 seqs, 40068593 residues Searched:

Minimum Match 0% Listing first 45 summaries Post-processing:

Database:

pir60 1:pir1 2:pir2 3:pir3 4:pir4

Mean 24.523; Variance 35.756; scale 0.686 Statistics: Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

			٥					
-	Result No.	Score	Query Match	Query Match Length	DB	ID	Description	Pred. No.
	-	1 1 0			;			; (
	4	2	T 00.0	F03	7	A240/8	monocyte chemotactic	3.20e-08
	7	66	97.9	120	7	148147	monocyte chemoattract	9.07e-08
	m	06	94.7	66	~	A60299		4.27e-07
	4	8	93.7	66	7	JC2136	monocyte chemoattract	7.13e-07
	വ	98		66	~	JC2417		3.28e-06
	9	85	89.5	66	7	A39296	monocyte chemoattract	5.44e-06
	7	82	89.5	66	7	JC2336	monocyte chemoattract	5.44e-06
	<b>∞</b>	84	88.4	125	7	146857	monocyte chemoattract	8.99e-06
	6	79	83.2	97	7	JC4912	eotaxin precursor - h	1.07e-04
	10	77	81.1	95	7	JN0841	interleukin-8 - dog	2.85e-04
	11	77	81.1	96	7	JC2478	eotaxin precursor - r	2.85e-04
	12	77	81.1	96	7	I48099	eotaxin precursor - q	2.85e-04
	13	77	81.1	101	7	146997	interleukin-8 - sheep	2.85e-04
	14	77	81.1	101	7	S42496	interleukin 8 - sheep	2.85e-04
	15	77	81.1	103	7	A53096	interleukin-8 precurs	2.85e-04
	16	77	81.1	103	7	A44253	alveolar macrophage c	2.85e-04
	17	97	٠.	92	7	152322	macrophage inflammato	4.63e-04
	18	75	78.9	20	7	C60407	monocyte adherence-in	7.49e-04
	19	75	78.9	92	7	A31767	macrophage inflammato	7.49e-04
	20	75	78.9	92	7	A30574	macrophage inflammato	7.49e-04
	21	75	78.9	93	7	B35673	LD78-beta protein pre	7.49e-04
	22	75	78.9	66	7	JC5295	monocyte chemotactic	7.49e-04
	23	75	78.9	148	7	S07723	immediate-early serum	7.49e-04

1.21e-03 1.95e-03 1.95e-03 1.95e-03 1.27e-02 2.02e-02 2.02e-02 2.02e-02 2.02e-02 2.02e-02 2.02e-02 3.19e-02 3.19e-02	7.91e-02 3.01e-01 1.10e+00 2.57e+00
interleukin-8 - rabbi monocyte chemoattract PDGF-inducible JE gly immune activation gen macrophage inflammato lymphocyte and monocy pre-B-cell growth-sti interleukin-8 homolog cytokine - mouse cytokine SDF-1-beta - interleukin-8 precurs Neutrophil attractant RSV-induced protein- transformation-induce monocyte chemoattract lymphotactin precurso monocyte cytokine FI	macrophage inflammato gene C10 protein - mo lymphotactin precurso hypothetical 41.7K pr Chitin synthetase I -
146871 A46539 A30209 A30209 A32393 A50177 A50177 A50177 A50154 A50154 A50154 A50154 A50154 A50417 A50417 A50417 A50417 A50417 A50415 A48093	C30552 149555 ETHUL JC5303 S55520
011000000000000000000000000000000000000	00100
1001 1001 1001 1001 1001 1001 1101 110	92 116 114 379 760
77 76.5 76.5 76.5 76.5 76.5 76.5 76.5 76	68.4 65.3 60.0 60.0
4 K K C C C C C C C C C C C C C C C C C	65 59 57 57
42000000000000000000000000000000000000	44444 HC2645

#### ALIGNMENTS

	rs Op al Ge	reference sion A5 Slecule_ty esidues ross-refer	al -referen sion olecule_ esidues	b. S32222.  Ors Minty, A.; Chalon, P.; Guillemot, J.C.; Kaghad, M.; Liauzun, P.; Magazin, M.; Miloux, B.; Minty, C.; Ramond, P.; Vita, N.; Lupker, J.; Shire, D.; Ferrara, P.; Caput, D. ission submitted to the EMBL Data Library, March 1993 ription Molecular cloning of MCP-3: a human monocyte-derived monocyte chemoattractant protein.	##molecule_type mRNA #residues 1-109 ##label MIN ##residues 1-109 ##label MIN ##cross-references EMBL:X71087; NID:9288396; PID:9288397 MENT This protein induces proteinase secretion and chemotaxis by macrophages and monocytes. ETICS GDB:SCYA7; SCYA6; MCP-3 #eross-references GDB:138473; OMIM:158106
RESULT 1 ENTRY TITLE ALTERNATE_NAMES ORGANISM DATE ACCESIONS	#authors #authors #journal #title	#Cross-reff #accession ##molect ##resid #cross REFERENCE #authors	#journal #title #cross-refr#accession ##molecr	REFERENCE #authors #submission #description #accession	##mole ##resi ##resi COMMENT T GENETICS #gene ##cros

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##residues
REFERENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            #authors Yoshimura, T.
#journal J. Immunol. (1993) 150:5025-5032
#title cDNA cloning of guinea pig monocyte chemoattractant protein-1
and expression of the recombinant protein.
#cross-references MUID:93267104
#accession 148147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shyy, Y.J.; Li, Y.S.; Kolattukudy, P.E.
Biochem. Biophys. Res. Commun. (1990) 169:346-351
Structure of human monocyte chemotactic protein gene and its
regulation by TPA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A60299 *type complete monocyte chemoattractant protein 1 precursor - human monocyte chemoattractant protein 1 precursor - human GDCF-1; gliome-carived monocyte chemotactic factor 1; monocyte secretory protein; tumor-derived chemotactic factor 2 glioma-derived chemotactic factor 2 glioma-derived chemotactic factor 2 (GDCF-2) *formal_name Homo sapiens *common_name man 20-Feb-1993 *sequence_revision 20-Feb-1993 *text_change
                                                                                             #domain signal sequence #status predicted #label SIG\
                                                                                                               #product monocyte chemotactic protein 3 #status
predicted #label MAT\
#binding_site carbohydrate (Asn) (covalent) #status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            monocyte chemoattractant protein-1 - guinea pig
#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0; Gaps
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                                                                                                                                                                                predicted #molecular-weight 12356 #checksum 1535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              *Superfamily macrophage inflammatory protein #length 120 *molecular-weight 13741 *checksum 9252
                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                             Score 95; DB 2; Length 109;
Pred. No. 3.20e-08;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 93; DB 2; Length 120;
Pred. No. 9.07e-08;
1; Mismatches 0; Indels
                         #superfamily macrophage inflammatory protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ##residues 1-120 ##label RES
##cross-references GB:L04985; NID:9349820; PID:9349821
                                              cytokine; glycoprotein; inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #type complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A34561; I57488; JC1096
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    #cross-references MUID:90290466
                                                                                                                                                                                                                                               y Match 100.0%;
Local Similarity 100.0%;
hes 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 97.9%;
Best Local Similarity 91.7%;
Matches 11; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                09-May-1997
  36/1; 75/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ##molecule_type mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ##molecule_type DNA
                                                                                                                                                                                                                                                                                                                                       83 EICADPTQKWVQ 94
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ##residues
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#introns
CLASSIFICATION
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CLASSIFICATION
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Rollins, B.J.; Stier, P.; Ernst, T.; Wong, G.G.
Mol. Cell. Biol. (1989) 9:4687-4695
The human homolog of the JE gene encodes a monocyte secretory
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PEBS Lett. (1999) 244:487-493
Human monocyte chemoattractant protein-1 (MCP-1). Full-length
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A chemoattractant expressed in human sarcoma cells (tumor-derived chemotactic factor, TDCF) is identical to monocyte chemoattractant protein-1/monocyte chemoattractant protein-1/monocyte chemotactic and
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                                                                                                                                                                                                                                                                                                                                                                                             cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE.
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##cross-references GB:S71513; NID:g240867; PID:g240868
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##cross-references GB:M37719; NID:g187447; PID:g487124
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                     Damme, J.
Biochem. Biophys. Res. Commun. (1990) 167:904-909
Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel
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Mol. Cell. Biochem. (1993) 126:61-68
The expression of monocyte chemotractic protein (MCP-1) in human vascular endothelium in vitro and in vivo.
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#formal_name Sus scrofa domestica #common_name domestic pig
30.Sep-1993 #sequence_revision 20-Aug-1994 #text_change
17-Mar-1999
JC2136; S57498
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Blophys. Res. Commun. (1994) 199:962-968
Porcine luteal cells express monocyte chemoattractant
Protein-1 (MCP-1): Analysis by polymerase chain reaction
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#modified_site pyrrolidone carboxylic acid (Gln) (in
mature form) #status experimental\
Decock, B.; Conings, R.; Lenaerts, J.P.; Billiau, A.; Van
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#length 99 #molecular-weight 11025 #checksum 7984
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#map_position 17411.2-17412
CLASSIFICATION #superfamily macrophage inflammatory protein
KEYWORDS cytokine; glycoprotein; inflammation; pyroglutamic acid
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Chinese J. Microbiol. Immunol. (1994) 14:29-32
The PCR, cloning and sequencing of human monocyte
chemoattractant protein-1 (MCP-1) gene.
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NCE JC1096
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#cross-references MUID:90211336
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#cross-references MUID:94183284
#accession JC2136
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#accession I57488
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Best Local Similarity 91.7%;
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#formal_name Sus scrofa domestica #common_name domestic pig
24.Feb-1995 #sequence_revision 24.Feb-1995 #text_change
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Biochen. Biophys. Res. Commun. (1994) 205:148-153
Porcine luteal cells express monocyte chemoattractant protein-2 (MCP-2): Analysis by CDNA cloning and northern
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##cross-references EMBL:X79416; NID:g872312; PID:g872313
FICATION #superfamily macrophage inflammatory protein
                                                             Zach, O. submitted to the EMBL Data Library, July 1994
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#*rocidues 1-99 ##label HOS
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Best Local Similarity 83.3%;
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monocyte chemoattractant protein-1 - bovine
#formal_name Bos primigenius indicus #common_name zebu cattle
20-Feb-1995 #text_change
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#product monocyte chemoattractant protein 1 #status
#authors Wempe, F.; Henschen, A.; Scheit, K.H.
#journal DNA Cell Biol. (1991) 10:671-679
#title Gene expression and cDNA choing identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1).
#accession A39296
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#formal_name Oryctolagus cuniculus #common_name domestic
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Biochem. Biophys. Res. Commun. (1994) 202:1272-1279
Characterization of the bovine monocyte chemoattractant
procein-1 gene.
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##cross-references GB:M84602; GB:M85264; NID:g163394; PID:g163395
cession B39296
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##residues 50-68,'x',70-74,'X',76 ##label WE2
##experimental_source seminal vesicle
##experimental_source seminal vesicle
IFICATION #superfamily macrophage inflammatory protein
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Pred. No. 5.44e-06;
1; Mismatches 1; Indels
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Pred. No. 5.44e-06;
1; Mismatches 1; Indels
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##molecule_type protein
1-99 ##label WEM
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Best Local Similarity 83.3%;
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#authors Yoshimura, T.; Yuhki, N.
#journal J. Immunol. (1991) 146:3483-3488
#title Neutrophil attractant/activation protein-1 and monocyte chemoattractant protein-1 in rabbit: cDNA cloning and their expression in spleen cells.
#cross-references MIID:91225489
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##experimental source dermal fibroblast
This protein has eosinophil specific chemotatic activity.
FICATION #superfamily macrophage inflammatory protein fibroblast.
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Blochen. Blochen. Brophys. Res. Commun. (1996) 225:1045-1051
Human dermal fibroblasts express eotaxin: Molecular cloning,
mRNA expression, and identification of eotaxin sequence
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#formal_name Homo sapiens #common_name man
01-Nov-1996 #sequence_revision 01-Nov-1996 #text_change
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19-May-1994 #sequence_revision 19-May-1994 #text_change
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#length 125 #molecular-weight 13776 #checksum 4498
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#length 97 #molecular-weight 10790 #checksum
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Best Local Similarity 66.7%; Pred. No. 1.07e-04;
Matches 8; Conservative 2; Mismatches 2; Indels
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larity 90.9%; Pred. No. 8.99e-06;
Conservative 0; Mismatches 1;
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#title Constitutive and allergen-induced expression of eotaxin mRNA in the guinea pig lung.
#cross-references MID:9517389
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T This protein is identified as a potent eosinophil chemoattractant.FICATION #superfamily macrophage inflammatory protein glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                sidues 1-95 ##label ISH
This protein is a polymorphonuclear leukocyles chemotactic factor
and is involved in the host defense function.
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#product eotaxin #status predicted #label MAT\
#binding_site carbohydrate (Thr) (covalent) #status
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                                                                                                                                                                                                                                                                                                                                               eotaxin precursor - rat
#formal_name Rattus norvegicus #common_name Norway rat
21-Feb-1995 #sequence_revision 05-Apr-1995 #text_change
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#formal_name Cavia porcellus #common_name guinea pig
02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change
                                                                                                          22/1; 67/2
#superfamily beta-thromboglobulin
#length 95 #molecular-weight 10611 #checksum 3157
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#cross-references MUID:94010328
#accession JN0841
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Best Local Similarity 66.7%;
Matches 8; Conservative
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                           ##molecule_type DNA
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#authors Seow, H.F.; Yoshimura, T.; Wood, P.R.; Colditz, I.G.
#journal Immunol. Cell Biol. (1994) 72:398-405
#title Cloning, sequencing, expression and inflammatory activity in skin of owine interleukin-8.
#cross-references MUID:95137691
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Cordier, G.
submitted to the EMBL Data Library, March 1994
Nucleotide sequence of ovine interleukin 8 cDNA using
polymerase chain reaction.
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#formal_name Ovis sp. #common_name sheep
21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change
09-May-1997
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#formal_name Ovis orientalis aries, Ovis ammon aries
#common_name domestic sheep
66-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
                                                           ##INDICCLIE_LYPE MANA
##residues 1-101 ##label LEG
##cross-references EMB:X78306; NID:9463253; PID:9463254
##CATION #superfamily beta-thromboglobulin
X #length 101 #molecular-weight 11292 #checksum 294
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#length 101 #molecular-weight 11292 #checksum 294
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##status preliminary; translated from GB/EMBL/DDBJ
##molecule_type mRNA
##residues 1-96 ##label RES
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Pred. No. 2.85e-04;
2; Mismatches 2; Indels
                                                                                                                                Score 77; DB 2; Length 90;
Pred. No. 2.85e-04;
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Pred. No. 2.85e-04;
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##cross-references GB:S74436; NID:g786590; PID:g786591
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##molecule_type mRNA
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llarity 81.8%;
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Matches 8; Conservative
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Best Local Similarity 66.7%;
Matches 8; Conservative
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Search completed: Fri Feb 4 17:44:58 2000 Job time: 22 secs.

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0; Gaps

Query Match
Best Local Similarity 66.7%; Pred. No. 2.85e-04;
Matches 8; Conservative 2; Mismatches 2; Indels

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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 17:44:01 2000; MasPar time 3.51 Seconds 72.692 Million cell updates/sec MPsrch_pp Run on:

not generated. Tabular output >US-09-150-813-66 (1-12) from US09150813.pep 95 Title: Description: Perfect Score:

1 EICADPTQKWVQ 12 Sequence:

170751 seqs, 21266608 residues Searched:

PAM 150 Gap 15

Scoring table:

Minimum Match 0% Listing first 45 summaries Post-processing:

Database:

a-geneseq35
1:part1 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7 8:part8 9:part9 10:part10 11:part11 12:part13 13:part13 14:part14 15:part15 16:part16 17:part17 18:part18 19:part19 20:part20 21:part21 22:part22 23:part23 24:part24 25:part25 26:part26 27:part27 28:part28 29:part29 30:part30 31:part31 32:part32 33:part33 34:part39 35:part39 37:part37 38:part38

Mean 18.261; Variance 66.240; scale 0.276 Statistics: Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

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Result No.	Score	Query	Query Match Length DB	DB	Ωī	Description	Pred. No.
н	95	100.0	67	14	R73915	Human monocyte chemoa	1.76e-02
7	95	100.0	66	13	R70801	Chemoattractant prote	1.76e-02
m	95	100.0	109	7	R24353	Cytokine encoded by c	1.76e-02
4	90	94.7	99	24	W13598	Monocyte chemoattract	5.67e-02
ហ	06	94.7	29	24	W13599	Monocyte chemoattract	5.67e-02
9	90	94.7	68	24	W13597	Monocyte chemoattract	5.67e-02
7	90	94.7	69	14	R87678	des(2-8) MCP-1.	5.67e-02
ω	90	94.7	69	24	W13596	Monocyte chemoattract	5.67e-02
6	90	94.7	92	14	R87677	(3-Ala) MCP-1.	5.67e-02
10	06	94.7	16	14	R87680	Monocyte chemotactic	5.67e-02
11	90	94.7	16	20	W09374	Monocyte chemotactic	5.67e-02
12	06	94.7	16	21	W11131	Mature human monocyte	5.67e-02
13	06	94.7	16	30	W40175	Macrophage chemoattra	5.67e-02
14	90	94.7	16	Н	P90292	Peptide from human ql	5.67e-02
15	90	94.7	16	10	R53398	Sense MCP-1.	5.67e-02
16	90	94.7	16	14	R87675	(28-Asp) MCP-1.	5.67e-02

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Gaps

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Score 95; DB 14; Length 67; Pred. No. 1.76e-02; 0; Mismatches 0; Indels

Query Match 100.0%; Best Local Similarity 100.0%; Matches 12; Conservative

41 eicadptgkwvg 52 |||||||||||||

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17   90   94.7   76   5   R28666   WGF.     18   90   94.7   76   14   R85559   Wattre WPP-1.     19   90   94.7   77   15   R86559   Wattre WPP-1.     20   90   94.7   77   15   R86559   Wattre WPP-1.     21   90   94.7   77   15   R86559   Wattre WPP-1.     22   90   94.7   99   14   R73914   Human monocyte chemonology of the wattre WPP-1     24   90   94.7   99   14   R73914   Human monocyte chemonology of the wattre WPP-1     25   86   90   94.7   99   18   R78660   WGF   WGF     24   90   94.7   99   18   R78660   WGF   WGF     25   86   90   94.7   99   18   R78660   WGF   WGF     26   86   90   94.7   99   18   R78660   WGF   WGF     27   86   90   94.7   99   18   R78660   WGF   WGF     28   86   90   94.7   99   18   R78660   WGF   WGF     29   86   90   94.7   99   18   R78660   WGF   WGF     20   86   90   94.7   99   18   R78660   WGF   WGF     20   86   90   94.7   99   18   R78660   WGF   WGF     20   86   90   94.7   99   18   R78660   WGF   WGF     20   86   90   94.7   99   18   R78660   WGF   WGF     20   86   90   94.7   99   18   R78660   WGF   WGF     21   86   90   94   94   94   94     22   86   90   94   94   94   94     23   86   90   94   94   94   94     24   86   90   94   94   94   94     25   86   90   94   94   94   94     26   86   90   94   94   94   94     27   86   86   90   94   94   94     28   86   90   94   94   94   94     29   86   86   90   94   94   94     20   86   86   90   94   94   94     20   86   86   90   94   94   94     20   86   86   90   94   94   94     21   80   84   94   94   94   94     22   86   90   94   94   94   94     23   86   90   94   94   94   94     24   80   84   94   94   94   94     25   86   90   94   94   94   94     26   86   90   94   94   94   94     27   86   86   90   94   94   94     28   86   90   94   94   94   94     29   84   84   94   94   94   94     20   84   84   94   94   94   94     20   84   84   94   94   94   94     20   84   84   94   94   94   94     20   84   84   94   94   94   94     20   84   84   94   94   94	55.65 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56.67 56	vaccine; .v-1; f nic sed for sed for tor hMCP-3. HAS) claimed antibody peptides cretial cterail ctic and e used as
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20-DEC-1996.
19-JUN-1995; 152141.
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                                                                                                                                                                                                                     Screening for cpds. with anti-heparanase activity - by detecting inhibition of heparin or heparan sulphate degradation, potentially useful for treating arthritis, restenosis, cancer. Claim 13; Page 50; 60pp; English.

Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-801. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into pVil392 baculovirus vector, and expression in Sf9 cells in the presence of reduced glutathione and dithiothreitol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New monocyte chemo:attractive cytokine - for treatment of cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and parasitic infections, e.g. leishmaniasis, leprosy or Chagas
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/label= signal
/note= "includes 3 potential initiation sites"
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0
                                                                          Chemoattractant protein MCP-3. MCP-3; chemoattractant; heparanase; heparin; heparan sulfate; arthritis; restenosis; cancer; wound healing.
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This protein is encoded by the NC28 clone isolated from
peripheral blood mononuclear cells stimulated with phorbol
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             26-NOV-1992 (first entry)
Cytokine encoded by clone NC28.
Cytokine; plasmid pSE1; HTLV-1; human T-lymphocyte virus; mouse; alpha-globin; E.coli cloning vector; ss.
                                                                                                                                                                                                                                                                                                                                                           Score 95; DB 13; Length 99; Pred. No. 1.76e-02; 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Caput D, Ferrara P, Miloux B, Minty A, Vita N;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       39.41
/label= N-glycosylation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
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R24353 standard; Protein; 109 AA.
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/label= cytokine
                               T 2
R70801 standard; Protein; 99 AA.
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Hoogwerf AJ, Ledbetter SR;
WPI; 95-082239/11.
                                                                                                                                                                                                                                                                                                                                                           Query Match 100.0%;
Best Local Similarity 100.0%;
                                                               29-AUG-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                  12; Conservative
                                                                                                                                          26-JUL-1994; U08207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
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29-NOV-1990; FR-014961.
(ERAP ) ELF SANOFI.
(SNFI ) SANOFI SA.
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1 EICADPTOKWVQ 12
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N-PSDB; Q25259.
                                                                                                                                                                                                                                                                                                                                       99 AA;
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                                                                                                            Homo sapiens.
WO9504158-A.
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                                                                                                                                   09-FEB-1995.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Synthetic.
                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                peptide
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                                                      R70801;
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Disclosure; Page 5; 27pp; English.

Disclosure; Page 5; 27pp; English.

Disclosure; Page 5; 27pp; English.

The present sequence represents an analogue, MCP-1 (10-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the chemoattractant protein-1 (MCP-1), acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding (MCP-1 inceptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared Squence 66 AA;
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                                                                                                                                                                                                                                                                                      Gaps
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Monocyte chemoattractant protein analogue MCP-1 (10-76).
Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
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07-NOV-1997 (first entry)
Monocyte chemoattractant protein analogue MCP-1 (11-76).
Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) lacks MCP-1 activity and inhibits receptor binding, useful as
2-myristate-3-acetate (see Q25259). The mature protein is claimed. It can be N-terminally deleted such that the mature protein starts at Val 3 or at Lys 19. The leader sequence is active in animal cells. See Q25258-Q25262.
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                                                                                                                                                                                                        Score 95; DB 2; Length 109;
Pred. No. 1.76e-02;
                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                   0; Mismatches
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                                                                                                                                                                                                        Query Match
100.0%;
Best Local Similarity 100.0%;
Matches 12; Conservative
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19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
(LEMIX) LEWIS I.
GONG J, LEWIS I;
WPI; 97-165844/16.
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                                                                                                                                                                                                                                                                                                                                                         83 eicadptqkwvq 94
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                                                                                                                                             109 AA;
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1 EICADPTQKWVQ 12

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The present sequence represents an analogue, MCP-1 (9-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the chemoattractant protein-1 (MCP-1). The analogue, which lacks the N-terminal annio acids 1-8 of MCP-1). The analogue is useful as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably with 75:1 for prior art mutant 7ND.

Sequence 68 AA;
                                                                                                                                                      The present sequence represents an analogue, MCP-1 (11-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the chemoattractant protein-1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-10 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared with 75:1 for prior art mutant 7ND.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) - lacks MCP-1 activity and inhibits receptor binding, useful as
                                                                           N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) - lacks MCP-1 activity and inhibits receptor binding, useful as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Gaps
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Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy; chronic inflammatory disease; arthritis; arteriosclerosis;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 90; DB 24; Length 67;
Pred. No. 5.67e-02;
0; Mismatches 1; Indels
                                                                                                                                               27pp; English.
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Claim 7; Page 5; 27pp; English.
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Best Local Similarity 91.7%;
Matches 11; Conservative
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Local Similarity 91.7%;
Les 11; Conservative
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19-JUN-1995; CA-152141.
                                                                                                                             anti-inflammatory agent
Disclosure; Page 5; 27pp
19-JUN-1995; CA-152141. (LEWI/) LEWIS I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41 eicadpkgkwvg 52
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WPI; 97-165844/16.
                                         Gong J, Lewis I;
WPI; 97-165844/16
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The monocyte chance attractant protein-1 (MCP-1) derivs. - are apable of inhibiting the monocyte chemo-attractant activity of and can be used to treat restenosis activity of endogenous MCP-1 and can be used to treat restenosis activity of endogenous MCP-1 and can be used to treat restenosis activity of endogenous concepts chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous competitution of 28-tyr by Leas not been modified by the competitution of 28-tyr by aspartate; (2) substitutions concepts and control of 28-tyr by aspartate; (2) substitution of 24 Arg concepts and cellular sequence is a specifically clearmed human MCP-1 acids 2-8. The present sequence is a specifically claimed human MCP-1 and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989.

The peptides can be used to prevent restenosis, e.g. in patients so sequence 69 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence represents an analogue, MCP-1 (8-76), of monocyte
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Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) lacks MCP-1 activity and inhibits receptor binding, useful as
                                                                                                                                          note= "amino acids 2-8 of the native protein have
been deleted between these residues"
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0
                                             des(2-8) MCP-1.
monocyte chemoattractant protein; MCP-1; mutant; restenosis;
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                                                                                                                                                                                                                                                                              (DAND ) DANA FARBER CANCER INST INC.
                                                                                                              Location/Qualifiers
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W13596 standard; peptide; 69 AA.
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Claim 5; Page 5; 27pp; English.
 R87678 standard; protein; 69 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 91.7%;
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                               21-FEB-1996 (first entry)
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19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
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12-NOV-1993; US-152301.
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5..45
                                                                                                                                                                                                                                                                                               Zhang YJ;
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WPI; 97-165844/16.
                                                                                                                                                                                                                                                                                             Rollins B, Zhang
WPI; 95-215051/28
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                                                                                                                                                                               disulfide_bond disulfide_bond
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                                                                                                                                 modified_site
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                                                                                                  Homo sapiens.
                                                                                                                                                                                                                             18-MAY-1995
                                                                                 angioplasty
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                   R87678;
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Gaps

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Monocyte chemotactic activating factor for use as wound remedy. monocyte chemotactic activating factor; MCAF; wound remedy.

Naruto M;

WPI; 95-131181/17

Matsushima K,

13-SEP-1994; J01512. 13-SEP-1993; JP-227385. (TORA ) TORAY IND INC.

23-MAR-1995.

sapiens.

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chemoattractant protein-1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-7 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably with 75:1 for prior art mutant 7ND.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       monocyte chemoattractant protein; MCP-1; mutant; restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 90; DB 24; Length 69;
Pred. No. 5.67e-02;
0; Mismatches 1; Indels
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Pred. No. 5.67e-02;
0; Mismatches 1; Indels
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(DAND ) DANA FARBER CANCER INST INC. Rollins B, Zhang YJ;
WPI; 95-215051/28.
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R87677;
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Best Local Similarity 91.7%;
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Similarity 91.7%;
11; Conservative
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12-NOV-1993; US-1523
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Matches 11: Conserv
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WO9513295-A1.
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Homo sapiens.
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LT 10
R87680 standard; protein; 76 AA.
R87680;

RESULT

1 EICADPIOKWVQ 12

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05-MAR-1996 (first entry)

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Anti-sense Monocyte Chemotactic Protein-1 oligo:nucleotide(s) -
useful for therapy or diagnosis of restenosis, etc.
Disclosure; Column 13-14; 16pp; English.
This is the amino acid sequence of the human monocyte chemoattractant
Protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
stimulator of monocyte chemotaxis and is produced by injured vascular
smooth cells thus attracting monocytes and macrophages which infiltrate
the injured area and release growth factor. This causes proliferation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the injured area and release growth factor. This causes proliferation of the vascular smooth cells resulting in restenosis. The gene sequence can be used to generate antisense sequences e.g. T48093-7, which can be used to inhibit in vitro MCP-1 produ. by mononuclear cells e.g. lymphocytes or macrophages, or smooth muscle cells, esp. in order to prevent vascular
                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                   therapeutic effect on skin wounds and ulcers.

Disclosure: Page 12; 22pp; Japanese.
The invention relates to a new remedy for curing wounds which, instead of comprising a growth factor, comprises a monocyte chemotactic activating factor (MOAF) or its variants or derivatives. The factor has potent effect on skin wounds and ulcers. The present sequence is human MCAF, the activity of which is exemplified as the new remedy.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Monocyte chemotactic protein 1. Human; monocyte chemoattractant protein; antisense; inhibition; mononuclear cell; lymphocyte; macrophage; smooth muscle cell; vascular restenosis.
                                                                                                                                                                   Wound treatment using monocyte chemotactic factor - has potent
                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                              Score 90; DB 14; Length 76;
Pred. No. 5.67e-02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 90; DB 20; Length /v, Pred. No. 5.67e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     'note= "encoded by codon CAG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'note= "encoded by codon AUG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "encoded by codon CAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Strieter RM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              W09374 standard; Protein; 76 AA.
                                                                                                                                                                                                                                                                                                                                              94.78;
91.78;
                                                                                                                                                                                                                                                                                                                                                           Local Similarity 91.7%;
hes 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-MAR-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 94.7%;
Best Local Similarity 91.7%;
Matches 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-NOV-1996.
22-OCT-1992; 05-5678.
22-OCT-1994; US-965678.
27-MXY-1994; US-265678.
(UNMI ) UNIV MICHIGAN.
Kunkel ZL, LYJe LR, Str
WPI; 96-505405/50.
N-PSDB; 148092.
                                                                                                                                                                                                                                                                                                                                                                                                               50 eicadpkqkwvq 61
                                                                                                                                                                                                                                                                                                                                                                                                                                            1 EICADPTOKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_difference 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    misc_difference 51
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Sat Feb

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US7304234-A.
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Radio.labelling neutrophil-activating peptide(s) - for imaging targetted delivery of radioactive agent with a represents mature human monocyte chemoattractant protein-1 will represents mature human monocyte chemoattractant protein-1 (MCP-1). MCP-1 was radionuclide labelled and used in a method for imaging a target site in vivo in an animal. Labelled MCP-1 was allowed to accumulate at a target site (having MCP-1 receptors) in the animal can detected so as to image the target site. Any Cys-Cys or Cys-Xaa-Cys chemokine carrying either iodine-123 or iodine-131 can be used in the method. Especially preferred is neutrophil activating peptide-2 (NAP-2) which recognises interleukin-8 receptors and is labelled with the technetium-99m, indium-111, coppers of infection, inflammation, in negation or restenosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Macrophage chemoattractant peptide designated GDCF-2.
Monocyte chemoattractant peptide; MCP-1; treatment; neoplasm; infection; human; monocyte receptor; chemotactic response; inflammation; monocyte infiltration.
                                                                                                    Mature human monocyte chemoattractant protein-1 (MCP-1).
Mature human monocyte chemoattractant protein-1; Cytokine; interleukin-8;
MCP-1; mature chemoattractant protein-1; Cytokine; interleukin-8;
IL-8; neutroph11 activating peptide; labelling; imaging; targeting;
radionucilde; infection; inflammation; neoplasm; atheromatous lesion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 90; DB 21; Length 76;
Pred. No. 5.67e-02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-JUN-1995; 466280.
30-MAR-1989; US-330446.
31-JAN-1989; US-304234.
(USSH ) US DEPT HEALTH & HUMAN SERVICES.
APPELIA E, Leonard EJ, Robinson EA, Yoshimura T;
WPI; 98-129909/12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note- "pyroglutamic acid"
                                                                                                                                                                                                                           /note= "X= any amino acid"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                             Lyle LR, Strieter RM;
                                                                                                                                                                                                                                                                                                                  (MLCW ) MALLINCKRODT MEDICAL INC. (UNMI ) UNIV MICHIGAN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   W40175 standard; Protein; 76 AA.
                                                                   JT 12
W11131 standard; protein; 76 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7%;
Local Similarity 91.7%;
nes 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-JUL-1998 (first entry)
                                                                                                                                                                                                                                                                             05-OCT-1992; US-956863.
05-OCT-1992; US-956862.
                                                                                                                                                                                                                                                                                          05-OCT-1992; US-956862.
29-APR-1994; US-235659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 EICADPTQKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       50 eicadpkqkwvq 61
                   1 EICADPTQKWVQ 12
  50 eicadpkqkwvg 61
                                                                                                                                                                                                                                                                  05-OCT-1992; 956862.
                                                                                                                                                                                                                                                                                                                                                          WPI; 97-153541/14.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            76 AA;
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                                                                                                                                                                                       Homo sapiens.
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                                                                                                                                                                                                                                         US5605671-A
                                                                                                                                                                           restenosis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                            W11131;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W40175
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Disclosure; page 3: 46pp; English. Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from Peptide is derived from glioma cell line U-105MG (ATCC CRL9932) or from leukocytes and has mol. wt. 8400. Used to treat infections and neoplasms.
                                                                            Claim 1: Column 27: 21pp; English.

The present sequence represents a monocyte chemoattractant peptide (MCP) and present sequence represents a monocyte chemoattractant peptide (MCP) designated GDCF-2. MCPs can be isolated from human gliona cell line U-105MG (e.g. present sequence) and peripheral blood mononouclear leukocytes. MCPs are used for the treatment of neoplasms and infections in humans. Short peptides derived from MCPs can be screened to identify those that can bind to the monocyte receptor without stimulating a chemotactic response. These are potentially useful for treating inflammation associated with monocyte infiltration.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New peptide with specific chemotactic activity for monocytes - isolated from glioma or leucocyte cells, useful for treating infections and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
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Peptide with chemotactic activity for monocytes - from human monocytes or glioma cells, useful for treating infections and
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Pred. No. 5.67e-02;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                             Length 76;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                   h
Similarity 91.7%; Score 90; DB 30; I
Similarity 91.7%; Pred. No. 5.67e-02;
11; Conservative 0; Mismatches 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (USSH) US Dept. of Health and Human.
Yoshimura T; Robinson E; Appella E; Leonard E.
WPI; 89-263501/36.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cell line U-105MG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /label= OTHER
/note= "pyroglutamic acid"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-JAN-1990 (first entry)
Peptide from human glioma cell line U-10:
Glioma; leucocyte; chemotaxis; neoplasms.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rr 14
P90292 standard; peptide; 76 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94.7%;
ilarity 91.7%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-304234.
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20-0CT-1993; U10074.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            50 eicadpkykwyg 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 EICADPTOKWVO 12
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31-JAN-1989; 030423.
31-JAN-1989; US-3042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                          76 AA;
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PR 22-OCT-1992; US-965678.

PA (MLCW) MALLINCKRODT MEDICAL INC.

Lyle LR;

Lyle LR;

Lyle LR;

WPI: 94-151314/18.

PT Anti-sense monocyte chemotactic protein-1 oligo:nucleotide(s) and peptide(s) - is used for inhibiting, treating or imaging areas of PT vascular restenosis or potential restenosis

PT vascular restenosis or potential restenosis

CC The sequences given in R53398-99 represent sense and antisense CC monocyte chemotactic protein-1 (MCP-1) respectively. These oligonucleotides may be labelled with a radionuclide and use CC monocyte and peptide antisense MCP-1 compounds may be constructed using high energy alpha or beta emitting isocopes rather than the gamma enitters cutomarily used for diagnostic purposes. Antisense MCP-1 compounds inactivate MCP-1 or inhibit production of MCP-1 so that monocytes are not attracted to the area of vascular injury and sequence 76 AA;
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Search completed: Fri Feb 4 17:44:18 2000 Job time : 17 secs.

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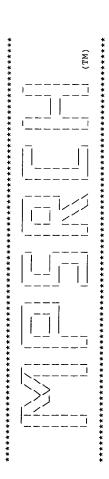
0.; Gaps

Score 90; DB 10; Length 76; Pred. No. 5.67e-02; 0; Mismatches 1; Indels

Ouery Match
Best Local Similarity 91.7%;
Matches 11; Conservative

50 eicadpkqkwvq 61 |||||| ||||| | EICADPTQKWVQ 12

oy Oy



Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Fri Feb 4 17:57:06 2000; MasPar time 2.53 Seconds 133.995 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-68 (1-12) from US09150813.pep 97 1 DICADPKKKWVQ 12 Title:

Description:
Perfect Score:
Sequence:

PAM 150 Gap 15 Scoring table:

77977 segs, 28268293 residues Searched:

Minimum Match 0% Listing first 45 summaries Post-processing:

Database:

swiss-prot37 1:swissprot

Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Mean 25.627; Variance 32.369; scale 0.792

# SUMMARIES

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Result No.	Score	Query	Ouery Match Length	DB	OI OI	Description	Pred. No.
1	16	100.0	97	-	EOTA_HUMAN	EOTAXIN PRECURSOR (EOS	3.72e-10
7	96	0.66	97	Н	EOTA MOUSE	EOTAXIN PRECURSOR (EOS	6.75e-10
3	96	99.0	97	Н	EOTA_RAT		6.75e-10
4	91	93.8	96	Н	EOTA_CAVPO		1.28e-08
2	88	91.8	66	Н	MCP1_HUMAN	MONOCYTE CHEMOTACTIC P	4.10e-08
9	83	91.8	101	Н	MCP1_CANFA	MONOCYTE CHEMOTACTIC P	4.10e-08
7	88	90.7	98	Н	MCP4_HUMAN	MONOCYTE CHEMOTACTIC P	7.31e-08
80	88	90.7	66	Н	MCP1_PIG	MONOCYTE CHEMOTACTIC P	7.31e-08
6	88	90.7	66	~	MCP2_BOVIN	MONOCYTE CHEMOTACTIC P	7.31e-08
10	98	88.7	88	Н	MIP4_HUMAN	MACROPHAGE INFLAMMATOR	2.31e-07
11	86	88.7	148	Н	MCP1_MOUSE	MONOCYTE CHEMOTACTIC P	2.31e-07
12	84	86.6	66	Н	MCPA_BOVIN	MONOCYTE CHEMOTACTIC P	7.20e-07
13	84	96.6	125	Н	MCP1_RABIT	MONOCYTE CHEMOTACTIC P	7.20e-07
14	82	84.5	66	~	MCP3_HUMAN	MONOCYTE CHEMOTACTIC P	2.22e-06
15	82	84.5	148	Н	MCP1_RAT	MONOCYTE CHEMOTACTIC P	2.22e-06
16	81	m.	74	Н	MCPB_BOVIN	MONOCYTE CHEMOTACTIC P	3.89e-06
17	81	ъ.	104	-1	MCP5_MOUSE	MONOCYTE CHEMOTACTIC P	3.89e-06
18	80	82.5	66	-	MCP2_PIG	MONOCYTE CHEMOTACTIC P	6.80e-06
19	80	82.5	101	Н	IL8_CAVPO	INTERLEUKIN-8 PRECURSO	6.80e-06
20	80	82.5	120	Н	MCP1_CAVPO	MONOCYTE CHEMOTACTIC P	6.80e-06
21	79	81.4	91	Н	SISD_MOUSE	T-CELL SPECIFIC RANTES	1.18e-05
22	79	81.4	92	Н	SISD_RAT	T-CELL SPECIFIC RANTES	1.18e-05
23	79	81.4	101	Н	IL8_CANFA	INTERLEUKIN-8 PRECURSO	1.18e-05

	TIRE-UD	1.18e-05	3.55e-05	3.55e-05	6.13e - 05	6.13e - 05	3.09e-04	3.09e-04	3.09e-04	8.92e-04	8.92e-04	8.92e-04	1.51e-03	1.51e-03	2.54e-03	4.26e-03	4.26e-03	7.12e-03	7.12e-03	1.19e-02	1.19e-02	1.19e-02
	INTERPEDATA PRECURSO	INTERLEUKIN-8 PRECURSO	MACROPHAGE INFLAMMATOR	MONOCYTE CHEMOTACTIC P	INTERLEUKIN-8 PRECURSO	INTERLEUKIN-8 PRECURSO	T-CELL SPECIFIC RANTES	T-CELL SPECIFIC RANTES	T-CELL SPECIFIC RANTES	STROMAL CELL-DERIVED F	STROMAL CELL-DERIVED F	STROMAL CELL-DERIVED F	MACROPHAGE INFLAMMATOR	INTERLEUKIN-8 PRECURSO	MACROPHAGE INFLAMMATOR	CHEMOKINE CC-1 PRECURS	CHEMOKINE CC-3 PRECURS	MONOCYTE CHEMOTACTIC P	LYMPHOTACTIN PRECURSOR	MACROPHAGE INFLAMMATOR	TONSILLAR LYMPHOCYTE L	LYMPHOTACTIN PRECURSOR
0 11	The Sheek	IL8_PIG	MI1A_RAT	MCP2_HUMAN	IL8_RABIT	IL8_BOVIN	SISD_PIG	SISD_CAVPO	SISD_HUMAN	SDF1_MOUSE	SDF1_HUMAN	SDF1_FELCA	MI1A_MOUSE	IL8_HUMAN	MI1B_CHICK	CCC1_HUMAN	CCC3_HUMAN	MCP3_MOUSE	LTN_RAT	MI1B_HUMAN	MI10_HUMAN	LTN_MOUSE
,	4 ,	-	Н	~	Н	Н	<b>,</b>	-	Н	Н	Н	Н	Н	-	-	Н	Н	7	7	_	П	Н
,	101	103	92	66	101	101	20	91	91	8	93	93	92	66	06	93	109	97	114	92	93	114
, 10	# · ·	81.4	79.4	79.4	78.4	78.4	75.3	75.3	75.3	73.2	73.2	73.2	72.2	72.2	71.1	70.1	70.1	69.1	69.1	0.89	68.0	68.0
7	- 1	6/	11	77	26	97	73	73	73	71	71	71	70	70	69	68	99	67	67	99	99	99
70	7 1	72	26	27	28	53	30	31	32	33	34	32	36	37	38	39	40	41	42	43	44	45

#### ALIGNMENTS

1 DICADPKKKWVQ 12

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                                                                                                             "Genomic organization, complete sequence, and chromosomal location of the gene for human eotaxin (SCYAll), an eosinophil-specific {\tt CC}
                                                                                                                                                                                                                                                                                                                                                                           CRUMP M.P., RAJARATHNAM K., KIM K.S., CLARK-LEWIS I., SYKES B.D.;
"Solution structure of eotaxin, a chemokine that selectively recruits
eosinophils in allergic inflammation.";
BIOCHEMISTRY 37:11670-11678-11989.
-!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -:- SUBCELLULAR LOCATION: EXTRACELLULAR.
-:- PTH: O-GIYCOSTLATED (PROBABLE).
-:- INDUCTION: BY THY-ALPHA, IL-1-ALPHA AND INTERFERON GAMMA.
-:- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                              Genomic organization, sequence, and transcriptional regulation of
                                                                                                                                                                                                                              MEDLINE; 97445071.
HEIN H., SCHLUETER C., KULKE R., CHRISTOPHERS E., SCHROEDER J.M.,
                                                                              GARCIA-ZEPEDA E.A., ROTHENBERG M.E., WEREMOWICZ S., SARAFI M.N., MORTON C.C., LUSTER A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 97; DB 1; Length 97; Pred. No. 3.72e-10; 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PDB; 2EOT; 11-NOV-98.
EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           L -> P (IN CLONE 34).
A -> T (IN CLONE 53).
R -> S (IN CLONE 34).
K -> R (IN CLONE 34).
6COF3D98 CRC32;
BIOCHEM. BIOPHYS. RES. COMMUN. 225:1045-1051(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POLYMORPHISM; 3D-STRUCTURE
                                                                                                                                                                                                                                                                                                the human ectaxin gene."; BIOCHEM. BIOPHYS. RES. COMMUN. 237:537-542(1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EOTAXIN.
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10732 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.08;
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nes 12; Conservative
                                                                                                                                                               GENOMICS 41:471-476(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            D49372; G1552241; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; U46572; G2088509; -. EMBL; Z92709; E329504; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; Z69291; E221070; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; Z75668; E251275; -. EMBL; Z75669; E251258; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFLAMMATORY RESPONSE; SIGNAL 1 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PFAM; PF00048; il8;
                                                 FISSUE=PLACENTA;
MEDLINE; 97312708.
                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          97 AA;
                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                STRUCTURE BY NMR. MEDLINE; 98380469
                                                                                                                                                                                                                  TISSUE=LUNG
                                                                                                                                                                                                                                                                 BARTELS J.;
                                                                                                                                                 chemokine.
                                                                  MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DISULFID
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=LUNG;
MEDLINE; 96158746.
GONZALO J.-A., JIA G.-Q., AGUIRRE V., FRIEND D., COYLE A.J.,
JENKINS N.A., LIN G.-S., KATZ H., LICHTMAN A., COPELAND N.G., KOPF M.,
GUTIERREZ-RAMOS J.-C.;
                                                                                                                                                                                                                                                                                                                                                                                                                         IMMUNITY 4:1-14(1996).
-!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                          ROTHENBERG M.E., LUSTER A.D., LEDER P.;
"Murine eotaxin: an eosinophil chemocatractant inducible in endothelial cells and in interleukin 4-induced tumor suppression.";
PROC. NATL. ACAD. SCI. US.A. 92:8960-8964(1995).
                                                                                                                                                                                                                                                                                                                                                                     "Mouse eotaxin expression parallels eosinophil accumulation during lung allergic inflammation but it is not restricted to a Th2-type
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                            EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
                                       01-FEB-1996 (REL. 33, CREATED)
01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 96; DB 1; L. Pred. No. 6.75e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BY SIMILARITY.
BY SIMILARITY.
F85A96BC CRC32;
              97 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POTENTIAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10893 MW;
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larity 91.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; U26426; G995911; -.
EMBL; U40672; G1113937; -.
MGD; MGI:103576; SCYA11.
PROSITE; PS00472; SMALL_CYI
                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PFAM; PF00048; i18; 1.
HSSP; P80098; 1NCV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INFLAMMATORY RESPONSE
                                                                                                              MUS MUSCULUS (MOUSE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
Matches 11; Conserv
                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97 AA;
                                                                                                                                                                                               MEDLINE; 96004658
LT 2
EOTA_MOUSE
P48298;
                                                                                                                                                                                    IISSUE-LUNG
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Gaps

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71 DICADPKKKWVQ 82

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LISSUE=LUNG
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DISULFID
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CARBOHYD
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                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Tostitute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ;
0
                                                                                                                                                                                                                                                                                                     PTM: O-GLYCOSYLATED (PROBABLE).
SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                  SUBMITTED (MAY-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
--- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT FEATURE OF ALLERGIC LINELAMMATORY REACTIONS (BY SIMILARITY).
--- SUBCELLULAR LOCATION: EXTRACELLULAR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;
0
                                                                                                                                  EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 1; Length 97;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EOSINOPHIL; CYTOKINE; CHEMOTAXIS; GLYCOPROTEIN; SIGNAL;
                                                                                                                                                                            WILLIAMS C.M., NEWTON D.J., WILSON S.A., COLEMAN J.C., FLANAGAN B.F.;
                                                                                                                                                                                              SUBMITTED (DEC-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                               15 3 STANDARD; PRT; 97 AA. P97545; 008780; 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE) 15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE) EOTAXIN PRECURSOR (EDSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-1994 (REL. 29, CREATED)
01-OCT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
EOTAXIN PRECURSOR (EOSINOPHIL CHEMOTACTIC PROTEIN).
                                                                                                                                            RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -> S (IN REF. 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 96; DB 1; L
Pred. No. 6.75e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05B4ED45 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EOTAXIN.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                96 AA
                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; Y08358; E274141; -
EMBL; U96637; G2098785; -
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                           C-C) (CHEMOKINE CC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                              PFAM; PF00048; il8; 1.
HSSP; P80098; INCV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFLAMMATORY RESPONSE
           1 DICADPKKKWVQ 12
71 EICADPKKKWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 71 EICADPKKKWVQ 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 DICADPKKKWVQ 12
                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    97 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24
33
94
94
                                                                                                                                                                                                                                TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EOTA_CAVPO
P80325;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CHAIN
DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
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-!- PTM: O-GIXCOSYLATED (PROBABLE).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE CC).
C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                 MEDLINE; 95091818.
JOSE P.J., ADCOCK I.M., GRIFFITHS-JOHNSON D.A., BERKMAN N.,
WELLS T.C., WILLIAMS T.J., POWER C.A.,
"Ectaxin: cloning of an eosinophil chemoattractant cytokine and
increased mRNA expression in allergen-challenged guinea-Pig lungs.";
BIOCHEM. BIOPHYS. RES. COMMUN. 205:788-794(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 24-96.
STRAIN-HARTLEY; TISSUE=LUNG;
MEDLINE; 94157409.
JOSE P. J., GRIFFITHS-JOHNSON D.A., COLLINS P.D., WALSH D.T.,
MOQBEL R., TOTIY N.F., TRUONG O., HSUAN J.J., WILLIAMS T.J.;
Ectaxin: a potent eosinophil chemoattractant cytokine detected in a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             guinea pig model of allergic airways inflammation.";
J. EXP. MED. 179:881-887(1994).
-!- FUNCTION: IN RESPONSE TO THE PRESENCE OF ALLERGENS, THIS PROTEIN
DIRECTLY PROMOTES THE ACCUMULATION OF EOSINOPHILS, A PROMINENT
FEATURE OF ALLERGIC INFLAMMATORY REACTIONS.
-!- SUBCELLULAR LOCATION: EXTRACELLULAR.
                                                                                                                                                                             ROTHENBERG M.E., LUSTER A.D., LILLY C.M., DRAZEN J.M., LEDER P.; "Constitutive and allergen-induced expression of ectaxin mRNA in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
CAVIA PORCELLUS (GUINEA PIG).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; HYSTRICOGNATHI; CAVIIDAE; CAVIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
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D -> G (IN REF. 2).
DD28C7E5 CRC32;
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0; Mismatches 0
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BY SIMILARITY.
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EMBL; X77603; G602552; -.
PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
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P13500;
01-JAN-1990 (REL. 13, CREATED)
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96
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10753 MW;
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Best Local Similarity 100.0%;
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HSSP; P13500; 1MCA.
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                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                        MEDLINE; 95173589
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31
32
93
88
96 AA;
                                                                                                                                                                                                                                  guinea pig lung.
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EMBL; M31626; G386961; -
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE CHEMOTACTIC
AND ACTIVATING FACTOR) (MCAF) (MONOCYTE SECRETORY PROTEIN JE)
(MONOCYTE CHEMOATTRACTANT PROTEIN 1) (HC11) (SMALL INDUCIBLE CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SHABANOWITZ J., HUNT D.F., APPELLA E., "Complete amino acid sequence of a human monocyte chemoattractant, a putative mediator of cellular immune reactions."; PROC. NATL. ACAD. SCI. U.S.A. 86:1850-1854(1989).
                                                                                                                                                                                                                                                                                                                                                           "Human monocyte chemoattractant protein-1 (MCP-1). Full-length cDNA cloning, expression in mitogen-stimulated blood mononuclear leukocytes, and sequence similarity to mouse competence gene JE."; FEBS LETT. 244:487-493(1989).
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                                                                                                                                             MEDLINE; 89165862.
FURUTANI Y., NOMURA H., NOTAKE M., OYAMADA Y., FUKUI T., YAWADA M.,
                                                                                                                                                                 LARSEN C.G., OPPENHEIM J.J., MATSUSHIMA K.; "Cloning and sequencing of the cDNA for human monocyte chemotactic and activating factor (MCAF)."; BIOCHEM. BIOPHYS. RES. COMMUN. 159:249-255(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "The expression of monocyte chemotactic protein (MCP-1) in human vascular endothelium in vitro and in vivo."; MOL. CELL. BIOCHEM. 126:61-68(1993).
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                                                                                                                                                                                                                                                       ROLLINS B.J., STIER P., ERNST T., WONG G.G.; "The human homolog of the JE gene encodes a monocyte secretory
                                                                                                                                                                                                                                                                                                                                                                                                                                                  SHYY Y.J., LI Y.S., KOLATTUKUDY P.E.; "Structure of human monocyte chemotactic protein gene and its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SHYY Y.J., WRIGHT J.G., VALENTE A.J., CORNHILL J.F.,
                                                                                              EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                        COSHIMURA T., YUHKI N., MOORE S.K., APPELLA E., LERMAN M.I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  YOSHIMURA T., LEONARD E.J.; "Human monocyte chemoattractant protein-1 (MCP-1)."; ADV. EXP. MED. BIOL. 305:47-56(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          regulation by TPA.";
BIOCHEM. BIOPHYS. RES. COMMUN. 169:346-351(1990)
 01-JAN-1990 (REL. 13, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDAT
                                                                                                                                                                                                                                                                                          MOL. CELL. BIOL. 9:4687-4695(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            monocytes: a new member of a IIII. IMMUNOL. 1:388-399(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE OF 29-53 AND 82-92. MEDLINE; 90211336.
                                                                                   HOMO SAPIENS (HUMAN).
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MEDLINE; 89184525.
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                                                                       SCYA2 OR MCP1.
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FEBS LETT. 395.277-287(1996).
-I-EDROLETT. 305.277-287(1996).
-I-EDROLETT. 305.277-287(1996).
BUT NOT NEUTROPHILS OR EOSINOPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. HAS BEEN IMPLICATED IN THE PATHOGENESIS OF DISEASES CHARACTERIZED BY MONOCYTIC INFILTRATES, LIKE PSORIASIS, RHEUMATOID ARTHRITIS OR ATHEROSCLEROSIS. MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL WALL DURING THE DISEASE PROCESS OF
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-!- PTM: PROCESSING AT THE N-TERMINUS CAN REGULATE RECEPTOR AND TARGET CELL SELECTIVITY. DELETION OF THE AMINO- TERMINAL RESIDIO CONVERTS IT FROM AN ACTIVATOR OF BASOPHIL TO AN EOSINOPHIL CHEMOATTRACTANT.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
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WEBBER M., UGUCCIONI M., BAGGIOLINI M., CLARK-LEWIS I., DAHINDEN C.A.;
"Deletion of the NH2-terminal residue converts monocyte chemotactic
protein 1 from an activator of basophil mediator release to an
eosinophil chemoattractant.";
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"Heteroncidear (1H, 13C, 15N) NMR assignments and solution structure of the monocyte chemoattractant protein-1 (MCP-1) dimer.";
BIOCHEMISTRY 35:6569-6584(1996).
DECOCK B., CONINGS R., LENAERTS J.-P., BILIAU A., VAN DAMME J.; "Identification of the monocyte chemotactic protein from human osteosarcoma cells and monocytes: detection of a novel N-terminally
                                                                                                                                                                                                                                                                                                                   MEDLINE; 91312872. GRONENDRN A.M., CLORE G.M.; GRONENBORN A.M., CLORE G.M.; Modeling the three-dimensional structure of the monocyte chemo-attractant and activating protein MCAF/MCP-1 on the basis of the solution structure of interleukin-8."; PROTEIN ENG. 4:263-269(1991).
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                                                                                                                                                                               BIOCHEM. BIOPHYS. RES. COMMUN. 167:904-909(1990).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            X-RAY CRYSTALLOGRAPHY (1.85 ANGSTROMS).
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                                                                                                                                                                                                                                                                             3D-SIRUCTURE MODELLING.
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CIRCULATION 95:693-700(1997)
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"Induction of monocyte chemoattractant protein-1 in the small veins of the ischemic and reperfused canine myocardium.";
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MISSING: LOSS OF ACTIVITY.
MISSING: 90% REDUCTION IN ACTIVITY.
MISSING: 83% REDUCTION IN ACTIVITY.
D->A: 90% REDUCTION IN ACTIVITY.
N->A: 50% REDUCTION IN ACTIVITY.
R->F: 95% REDUCTION IN ACTIVITY.
S->C: 40% REDUCTION IN ACTIVITY.
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7->L: 90% REDUCTION IN ACTIVITY
53558695 CRC32;
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01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                PYRROLIDONE CARBOXYLIC ACID.
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TISSUE-JUGULAR VEIN ENDOTHELIAL;
MEDLINE; 97176620.
                                                                                                         G338007; JOINED. G338007; JOINED.
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Similarity 83.3%;
10; Conservative
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G641145; -.
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                               G307163;
G338009;
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G338007;
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G240868;
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PFAM; PF00048; i18; 1.
CYTOKINE; CHEMOTAXIS;
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                                                              G34514;
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PDB; 1DOL; 12-MAR-97.
PDB; 1DOM; 14-OCT-96.
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PIR; S03339; S03339.
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PDB; 1MCA; 15-OCT-94
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                                            M28226;
X14768;
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A17786;
                                M24545;
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P52203;
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DISULFID
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EMBL;
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DORANGE PLANTER PARTY OF A STATE 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                            -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-!- INDUCTION: BY TNF-ALPHA.
-!- TISSUE SPECIFICITY: ENDOTHELIUM OF SMALL VEINS AND INTRAFASCICULAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 96235049.
UGUCCIONI M., LOETSCHER P., FORSSMANN U., DEWALD B., LI H., LIMA S.H.,
LI Y., KREIDER B., GAROTTA G., THELEN M., BAGGIOLINI M.;
"Monocyte chemotactic protein 4 (MCP-4), a novel structural and
                                                                                                                                                                                                                                  VEINS, AND INFILTRATING LEUKOCYTES.
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             chemokine with activities on monocytes, eosinophils, and basophils induced in allergic and nonallergic inflammation that signals through the CC chemokine receptors (CCR)-2 and -3."; JIMMUNOL 157:5613-5626(1996).
-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT NEUTROPHILS. IMPORTANT FACTOR IN THE COURSE OF THE INFLAMMATORY REACTION TO REPERFUSION OF THE PREVIOUSLY ISCHEMIC MYOCARDIUM. MAY PLAY A SIGNIFICANT ROLE IN MONOCYTE TRAFFICKING INTO THE REPERFUSED MYOCARDIUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
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LAVIGNE F., HAMID Q., MURPHY P.M., LUSTER A.D.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            .;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MONOCYTE CHEMOTACTIC PROTEIN 1. PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-JUL-1998 (REL. 36, CREATED)
15-JUL-1998 (REL. 36, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 4 PRECURSOR (MCP-4) (MONOCYTE
CHEMOATTRACTANT PROTEIN 4) (CK-BETALO) (NCC-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 89; DB 1; Length 101; Pred. No. 4.10e-08;
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BY SIMILARITY.
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PFAM; PF00048; i18; 1.
HSSP; P13500; 1DON.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11121 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            h 91.8%;
Similarity 83.3%;
10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; U29653; G1144186; -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101 AA;
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Best Local Similarity
Matches 10; Conser
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                                                                                                                                                                                                                                                                                                                         TISSUE-LUNG;
POWER C.A., METER A., RISON S.C.G., GUYE-COULIN F., WELLS T.N.C.;
SUBMITTED (DEC-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!-FUNCTION: CHEWOTACTIC FACTOR THAT ATTRACTS MONOCYTES, IYMPHOCYTES,
BASOPHILS AND EOSINOPHILS, BUT NOT NEUTROPHILS. SIGNALS THROUGH
CCREB AND CRR RECEPTORS. PLAYS A ROLE IN THE ACCUMULATION OF
LEUKOCYTES AT BOTH SIDES OF ALLERGIC AND NONALLERGIC INFLAMMATION.
MAY BE INVOLVED IN THE RECRUITMENT OF MONOCYTES INTO THE ARTERIAL
WALL DURING THE DISEASE PROCESS OF ARTHEROSCLEROSIS. MAY PLAY A
ROLE IN THE MONOCYTE ATTRACTION IN TISSUES CHRONICALLY EXPOSED TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -i- PTM: ONE MAJOR ISOFORM MCP-4, AND TWO MINOR ISOFORMS (LA)MCP-4 AND (FUNDGLA)MCP-4 ARE PRODUCED BY DIFFERENTIALS SIGNAL CLEAVAGE.
(LA)MCP-4 IS ABOUT 30 FOLD LESS ACTIVE THAN MCP-4.
-i- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MASS SPECTROMETRY: MW=9314; MW_ERR=30; METHOD=MALDI; RANGE=17-98. MASS SPECTROMETRY: MW=676; MW_ERR=30; METHOD=MALDI; RANGE=22-98. MASS SPECTROMETRY: MW=8575; MW_ERR=30; METHOD=MALDI; RANGE=24-98. INDUCTION: BY INTERLEDEX.NY-1 AND TNF-ALPHA.

TISSUE SPECIFICITY: WIDELY EXPRESSED. FOUND IN SMALL INTESTINE. THYMOS. COLON. LUNG, TRACHEA, STOMACH AND LYMPH NODE. LOW LEVELS SEEN IN THE PULMONARX RATERY SMOOTH MUSCLE CELLS.
                                                                        MEDLINE; 97341179.
MEDLINE; 97341179.
MEDRINGT T.A., SARAU H.M., MOORES K., WHITE J.R., ELSHOURBAGY N., APPELBAUM E., REAPE T.J., BRANNER M., MAKWANA J., FOLEY J.J., SCHAIDT D.B., IMBURGIA, MACNULTY D., MATTHEWS J., O'DONNELL K., O'SHANNESSY D., SCOTT M., GROOT P.H.E., MACPHEE C.; Cloning, in vitro expression, and functional characterization of a novel human CC chemokine of the monocyte chemotactic protein (MCP) family (MCP-4) that binds and signals through the CC chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CYTOKINE; CHEMOTAXIS; SIGNAL; GLYCOPROTEIN; INFLAMMATORY RESPONSE.
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1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 88; DB 1; Length 98;
                                                                                                                                                                                                                                                                DANTE M., GIBSON A.;
SUBMITTED (AUG-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DF52F6EC CRC32;
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BY SIMILARITY.
functional analogue of MCP-3 and eotaxin.";
J. EXP. MED. 183:2379-2384(1996).
                                              SEQUENCE FROM N.A., AND SEQUENCE OF 22-33.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; U46767; G1732123; -.
EMBL; AC002482; G2340091; -.
EMBL; X98306; E248571; -.
MIM; 601391; -.
PFAM; PF00048; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; i18; 1.
HSSP; P13500; 1D0L.
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                                                                                                                                                                                                                   J. BIOL. CHEM. 272:16404-16413(1997).
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ses 10; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -!- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
MEDLINE; 94183284.
HOSANG K., KNOKE I., KLAUDINY J., WEMPE F., WUTTKE W., SCHEIT K.H.;
"Porcine luteal cells express monocyte chemoattractant protein-1
(MCP-1): analysis by polymerase chain reaction and cDNA cloning.";
BIOCHEM. BIOPHYS. RES. COMMUN. 199:962-968(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZACH O.R.F.; SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
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                                                                                                                                                                                                                                                                                                                                           EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
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01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 2 PRECURSOR (MCP-2) (MONOCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1; Indels
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Pred. No. 7.31e-08;
2; Mismatches 1; Indels
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                                                                                                                                                                                          01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1).
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BY SIMILARITY.
ECC3AFB4 CRC32;
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                                                                                                                                              99 AA
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EMBL; X79416; G872313; -.
EMSCSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; i18; 1.
HSSP; P13500; 1DON.
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35 75 1
99 AA; 10976 MW;
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1 DICADPKKWWQ 12
72 EICADPKEKWVQ 83
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                    SUS SCROFA (PIG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=BRAIN;
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                                                                                                                     LT 8
MCP1_PIG
P42831;
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                  RRITHER REPRESENTATION OF THE PROPERTY OF THE 
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                                                                                                                                                                                                                                                                                                                              -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES. THIS PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                          -!- SUBUNIT: MONOMER OR HOMODIMER: IN EQUILIBRIUM (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                     "Cloning of the gene for bovine monocyte chemoattractant protein-2."; DNA CELL BIOL. 13:1-8(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIGNAL; HEPARIN-BINDING; INFLAMMATORY RESPONSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 4 PRECURSOR (MIP-4) (PULMONARY AND ACTIVATION-REGULATED CHEMOKINE) (CC CHEMOKINE PARC) (ALTERNATIVE ACTIVATED MACROPHAGE ASSOCIATED CC CHEMOKINE 1) (AMAC-1).
                                                     BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOVINAE; BOS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
TISSUE-AORTA, AND LUNG;
MEDLINE: 97376836.
HIESHIMA K., IMAI T., BABA M., SHOUDAI K., ISHIZUKA K.,
NAKAGAWA T., TSURUTA J., TAKEYA M., SAKAKI Y., TAKATSUKI K.,
MIURA R., OPDENAKKER G., VAN DAMME J., YOSHIE O., NOMIYAMA H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ;
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EUKARXOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 2.
PYRROLIDONE CARBOXYLIC ACID (BY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. 7.31e-08;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    89 AA.
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BY SIMILARITY.
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PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; i18; 1.
HSSP; P80098; 1NCV.
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                                                                                                                                                                                                                                               WEMPE F., HANES J., SCHEIT K.H.;
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CHEMOATTRACTANT PROTEIN 2).
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les 10; Conservative
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75
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                                                                                                                                                                                                                                                                                                                                                                 CAN BIND HEPARIN.
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                                                                                                                                                                                SEQUENCE FROM N.A. MEDLINE; 94114084.
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                                  SCYA8 OR MCP2.
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P55774:
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                                                                                                                                                                                                                                                         DISCUSSION OF SEQUENCE.

MEDLINE; 97275308

WEDLINE TO.N.C., PEITSCH M.C.;

"The chemokine information source: identification and characterization of novel chemokines using the WorldWideWeb and expressed sequence tag databases.",

J. LEUKGC. BIOL. 61:545-550(1997).

-- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS LYMPHOCYTES BUT NOT MONOCYTES. RO RARMUTOCYTES. MAY BE INVOLVED IN B CELL MIGRATION INTO B CELL FOLLICLES IN LYMPH NODES.

-- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN THE LUNG. A LOWER LEVEL EXPRESSION. IS SEEN IN LYMPHOID TISSUES SUCH AS LYMPH NODES,
                                                                                                                                         SEQUENCE FROM N.A.
KODELJA V., MUELLER C., POLITZ O., HAKIY N., ORFANOS C.E., GOERDT S.; SUBMITTED (AUG-1997) TO EMBL/CENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -:- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
"A novel human CC chemokine PARC that is most homologous to macrophage-inflammatory protein-1 alpha/LD78 alpha and chemotactic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-MAR-1989 (REL. 10, CREATED)
01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
15-UUL-1998 (REL. 36, LAST ANOTOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (PLATELET-DERIVED GROWTH FACTOR-INDUCIBLE PROTEIN JE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 89093129.
KAWAHARA R.S., DEUEL T.F.;
"Platelet-derived growth factor-inducible gene JE is a member of a family of small inducible genes related to platelet factor 4.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MACROPHAGE INFLAMMATORY PROTEIN 4.
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RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 86; DB 1; Length 89;
Pred. No. 2.31e-07;
2; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                052AA3DC CRC32;
                                                           : T lymphocytes, but not for monocytes."; IMMUNOL. 159:1140-1149(1997).
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BY SIMILARITY.
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MCP1_MOUSE
P10148;
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SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -:- SUBGNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
-:- INDUCTION: BY PLATELET-DERIVED GROWIH FACTOR.
-:- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                      ROLLINS B.J., MORRISON E.D., STILES C.D.;
"Cloning and expression of JE, a gene inducible by platelet-derived
growth factor and whose product has cytokine-like properties.";
PROC. NATL. ACAD. SCI. U.S.A. 85:3738-3742(1988).
                                                                                                                                                                                                                                                                                                                               VAN DAMME J., DECOCK B., BERTINI R., CONINGS R., LENAERTS J.-P.,
PUT W., OPDENAKKER G., MANTOVANI A.;
Production and identification of natural monocyte chemotactic
protein from virally infected murine fibroblasts. Relationship with
the product of the mouse competence (JE) gene.";
EUR. J. BIOCHEM. 199:223-229(1991).
-:- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-DEC-1992 (REL. 24, CREATED)
1-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
01-NOV-1995 (REL. 32, LAST ANDTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN IA PRECURSOR (MCP-1A) (MCP-1) (ACIDIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOVINAE; BOS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOKINE; CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 86; DB 1; Length 148;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; Indels
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2; Mismatches 1
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BY SIMILARITY.
BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PIR; A30209; A30209.
PIR; A30209; A30209.
PIR; A30861; A30861.
PIR: S16226; S16226.
MGD; MGI:98259; SCYA2.
MGD; MGI:98259; SCYA2.
PSOOSTEE; PSO0472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00148; 118; 1.
HSSP; P13500; 1D0L.
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   J. BIOL. CHEM. 264:679-682(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  59 BY
75 BY
126 PC
16326 MW;
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75.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C-C) (CHEMOKINE CC).
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35
126
148 AA;
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SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                   SEQUENCE OF 26-42.
                                                         SEQUENCE FROM N.A. MEDLINE; 88234501.
                                                                                         88234501
                                                                                                                                                                                                                                                                                                            91293127
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P28291;
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CARBOHYD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -!- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                                                                                                                                                                                                                                                             WEMPE F., EINSPANIER R., SCHEIT K.H.;
"Characterization by cDNA clonhing of the mRNA of a new growth factor from bovine seminal plasma: acidic seminal fluid protein.";
BIOCHEM. BIOPHYS. RES. COMMUN. 183:232-237(1992).
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              MEDLINE, 92096117.

WEMPE F., HENSCHEN A., SCHEIT K.H.;
"Gene expression and cDNA cloning identified a major basic protein constituent of bovine seminal plasma as bovine monocyte-chemoattractant protein-1 (MCP-1).";
DNA CELL BIOL. 10:671-679(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WREDLIANS, $433803, 43.00 O.K., SCHELT R.H.;
"Characterization of the bovine monocyte chemoattractant protein-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
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EUKARYOTA; METAZOA; CHORDATA; VERIEBRATA; MAMMALIA; EUTHERIA;
LAGOMORPHA; LEPORIDAE; ORYCTOLAGUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MONOCYTE CHEMOTACTIC PROTEIN 1A. PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Indels
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Pred. No. 7.20e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BIOCHEM. BIOPHYS. RES. COMMUN. 202:1272-1279(1994)
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BY SIMILARITY.
C8F5821D CRC32;
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01-DEC-1992 (REL. 24, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2; Mismatches
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EMBL; M84602; G103395; -.
PIR; A39296; A39296.
PIR; JC2336; JC2336; JC2336; PROSITE; PS00472; SMALL_CYTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P13500; 1DON.
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75 I
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CYTOKINE; CHEMOTAXIS; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              86.68;
75.08;
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                                                                                                                                                                                                               SEQUENCE FROM N.A.
TISSUE-SEMINAL PLASMA;
MEDLINE; 92181448.
TISSUE-SEMINAL PLASMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 DICADPKKKWVQ 12
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Best Local Similarity
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DISULFID
SEQUENCE
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GENOMICS 21:403-408(1994).

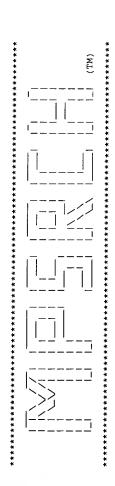
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                                                                                                                                  -i- SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OPDENAKKER G., FITEN P., NYS G., FROYEN G., VAN ROY N., SPELEMAN F., LAUREYS G., VAN DAMME J.;
"The human MCP-3 gene (SCYA7): cloning, sequence analysis, and assignment to the C-C chemokine gene cluster on chromosome 17q11.2-q12.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPDEMAKKER G., FROYEN G., FITEN P., PROOST P., VAN DAMME J.; "Human monocyte chemotactic protein-3 (MCP-3): molecular cloning of the cDNA and comparison with other chemokines."; BIOCHEM. BIOPHYS. RES. COMMUN. 191:535-542(1993).
                          YOSHIMURA T., YUHKI N.;
"Neutrophil attractant/activation protein-1 and monocyte
chemoattractant protein-1 in rabbit. cDNA cloning and their
expression in spleen cells ",
J. IMMUNOL. 146:3483-3488(1991).
-!- FUNCTION: CHEMOTACIIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
                                                                                                                                                                                                                                                                                                                                                                         CHEMOTAXIS; SIGNAL; INFLAMMATORY RESPONSE; GLYCOPROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                      BY SIMILARITY.
MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
LASTUL-1998 (REL. 32, LAST ANNOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROFIEN 3 PRECURSOR (MCP-3) (MONOCYTE
CHEMOATTRACTANT PROTEIN 3) (NC28).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 84; DB 1; Length 125;
Pred. No. 7.20e-07;
0; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A., AND SEQUENCE OF 31-67 AND 71-99.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL.
POTENTIAL.
FBAC9D27 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                            BY SIMILARITY.
BY SIMILARITY.
POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99 AA
STRAIN=NEW ZEALAND WHITE; TISSUE=SPLEEN;
                                                                                                                                                                                                                                                                                                                              PS00472; SMALL_CYTOKINES_CC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EUKARYOTA; METAZOA; CHORDATA; VERTEBRA
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-DEC-1992 (REL. 24, CREATED)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    86.6%;
90.9%;
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                                                                                                                                                              C-C) (CHEMOKINE CC).
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PROSITE; PS00472; SMALL_C
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40
55
112
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125
24
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HSSP; P13500; 1DON.
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HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
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                  MEDLINE; 91225489.
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                                                                                                                      NEUTROPHILS
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24
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35
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P80098;
                                                                                                                                                                                                                                                                                                                                                                         CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                              occurrate and functional identification of two human, tumor-derived monocyte chemotactic proteins (MCP-2 and MCP-3) belonging to the chemokine family.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -1- PTM: O-GLYCOSYLATED.
-1- SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE C-C) (CHEMOKINE CC).
                                                    SEQUENCE FROM N.A.
MEDLINE; 93305913.
MEDLINE; 93305913.
MINIY A., CHALON P., GUILLEMOT J.C., KAGHAD M., LIAUZUN P.,
MAGAZIN M., MILOUX B., MINIY C., RAMOND P., VITA N., LUPKER J.,
SHIRE D., FERRARA P., CAPUT D.;
"Molecular cloning of the MCP-3 chemokine gene and regulation of its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         spectroscopy.";
BIOCHEMISTRY 36:4412-4422(1997).
-!- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES AND EOSINOPHILS, BUT NOT NEUTROPHILS. AUGMENTS MONOCYTE ANTI-TUMOR ACTIVITY. ALSO INDUCES THE RELEASE OF GELATINASE B. THIS PROTEIN CAN BIND HEPARIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 97263733.
MEUNIER S., BERNASSAU J.-M., GUILLEMOT J.-C., FERRARA P., DARBON H.; "Determination of the three-dimensional structure of CC chemokine monocyte chemoattractant protein 3 by 1H two-dimensional NNR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRUCTURE BY NMR, AND SUBUNIT.
MEDLINE; 97053697.
KIM K.-S., RAJARATHNAM K., CLARK-LEWIS I., SYKES B.D.;
"Structural characterization of a monomeric chemokine: monocyte chemoattractant protein-3.";
FEBS LETT. 395:277-282(1996).
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PFAM; PF00048; 118; 1.
CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING; GLYCOPROTEIN; SIGNAL;
INFLAMMATORY RESPONSE; 3D-STRUCTORE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MONOCYTE CHEMOTACTIC PROTEIN 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PYRROLIDONE CARBOXYLIC ACID
                                                                                                                                                                                                                                                                                                                                                                                                                    VAN DAMME J., PROOST P., LENAERTS J.-P., OPDENAKKER G.; "Structural and functional identification of two human,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    T -> K (IN REF. 4).
MISSING (IN REF. 4).
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BY SIMILARITY.
POTENTIAL.
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EMBL; X72309; -; NOT_ANNOTATED_CDS.
EMBL; X71087; G288399; -
EMBL; X71087; G288399; ALT_INIT.
EMBL; X71087; G288397; ALT_INIT.
PIR; S32222; S32222.
PIR; A54678; A54678.
                                                                                                                                                                                                                                                                   EUR. CYTOKINE NETW. 4:99-110(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EXP. MED. 176:59-65(1992).
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MEDLINE; 92308855.
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MIM; 158106; -.
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SEQUENCE FROM N. A.
STRAIN-WAG/RIJ; TISSUE-KIDNEY;
MEDLINE; 90174947.
TIMMERS H.T.H.M., PRONK G.J., BOS J.L., VAN DER EB A.J.;
Analysis of the rat JE gene promoter identifies an AP-1 binding site essential for basal expression but not for TPA induction.";
NUCLEIC ACIDS RES. 18:23-34(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SUBUNIT: MONOMER OR HOMODIMER; IN EQUILIBRIUM (BY SIMILARITY). SIMILARITY: BELONGS TO THE INTERCRINE BETA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 91128376.

YOSHIMURA I., TAKEYA M., TAKAHASHI K.;
"Molecular cloning of rat monocyte chemoattractant protein-1 (MCP-1) and its expression in rat spleen cells and tumor cell lines.";
BIOCHEM. BIOPHYS. RES. COMMUN. 174:564-509(1991).
-i- FUNCTION: CHEMOTACTIC FACTOR THAT ATTRACTS MONOCYTES, BUT NOT
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                                                                Gaps
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                                                                                                                                                                                                                              01-APR-1990 (REL. 14, CREATED)
1-APR-1990 (REL. 14, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANOTATION UPDATE)
MONOCYTE CHEMOTACTIC PROTEIN 1 PRECURSOR (MCP-1) (IMMEDIATE-EARLY
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERLA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
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MONOCYTE CHEMOTACTIC PROTEIN 1.
PYRROLIDONE CARBOXYLIC ACID (BY
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2; Mismatches 1; Indels
                             Score 82; DB 1; Length 99;
Pred. No. 2.22e-06;
1; Mismatches 2; Indels
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DB97F97C CRC32;
99 AA; 11200 MW; 7502E19C CRC32;
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BY SIMILARITY.
BY SIMILARITY.
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PIR; JN0128; JN0128.
PRS S07723; S07723.
PROSITE; PS00472; SMALL_CXTOKINES_CC; 1.
PFAM; PF00048; 118; 1.
HSSP; P13500; 1DOL.
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Best Local Similarity 75.0%;
Matches 9; Conservative
                             Query Match
Best Local Similarity 75.0%;
                                                                9; Conservative
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                                                                                                                                1 DICADPKKKWVQ 12
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MCP1_RAT
P14844;
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Search completed: Fri Feb 4 17:57:13 2000 Job time: 7 secs.



Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

protein - protein database search, using Smith-Waterman algorithm MPsrch_pp

Fri Feb 4 17:55:46 2000; MasPar time 3.52 Seconds 72.505 Million cell updates/sec Run on:

not generated. Tabular output

>US-09-150-813-68 (1-12) from US09150813.pep 97 Title: Description: Perfect Score:

PAM 150 Gap 15 Scoring table:

1 DICADPKKKWVQ 12

Sequence:

170751 seqs, 21266608 residues Searched:

Minimum Match 0% Listing first 45 summaries Post-processing:

Database:

### 15. part2 3. part3 4. part4 5. part5 6. part6 7. part7 8. part1 2. part12 13. part12 13. part12 13. part13 14. part14 15. part14 15. part15 16. part16 17. part17 18. part18 19. part18 20. part20 21. part21 22. part22 23. part23 24. part24 25. part25 26. part26 27. part27 28. part28 29. part29 30. part39 31. part31 32. part33 33. part33 39. part39 39. part39 39. part39 a-geneseq35

Variance 65.577; scale 0.283 Mean 18.545; Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Pred. No.	8.92e-03	1 8.92e-03	8.92e-03	8.92e-03		ω,					9	9	6.04e-02	6.04e-02	6.04e-02	
Description	Amino acid sequence o	Pancreas expressed ch	Human eotaxin,	Human eosinocyte CC	Eotaxin chemoattracta	Guinea pig eosinocyte	Monocyte chemoattract	Monocyte chemoattract	Monocyte chemoattract	des(2-8) MCP-1.	Monocyte chemoattract	Macrophage chemoattra	(3-Ala) MCP-1.	Monocyte chemotactic	(24-Arg) MCP-1.	Peptide from human gl
Ω	W44721	W00667	W10099	W14990	R70252	W14991	W13598	W13599	W13597	R87678	W13596	W40175	R87677	W09374	R87676	P90292
DB	29	21	23	24	13	24	24	24	24	14	24	30	14	20	14	Н
% Query Match Length	82	46	97	97	73	96	99	67	68	69	69	76	76	76	16	26
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Score	46	6	4	26	91	91	89	83	88	89	83	88	89	89	89	83
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(28-ASP) MCP-1. MCF. Sense MCP-1. Monocyte chemotactic Mature human monocyte chemoa Macrophage chemoatra Human monocyte chemoa Macrophage chemoatra Human monocyte chemoa Macrophage chemoatra Human monocyte chemoa Droll + chemokine beta Chemokine MCP-4 prote Bac 3 chemokine betal Droll/2 chemokine betal Droll/2 chemokine betal Bac 1 chemokine betal Human monocyte chemoa Human chemokine betal Monocyte olhemotactic Stem cell mobilising Human dendritic cell Macrophage inflammato	in.
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## ALIGNMENTS

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Nucleic acids encoding secreted proteins from clones within ATCC 98076 - useful as immuno-modulators, anti-proliferative agents, requiators of cell differentiation and tissue growth, etc claim 26, Page 68; 99pp; English.

The present sequence represents the amino acid sequence of a secreted protein encoded by clone AM262_11. The clone was isolated from a human fetal kidney cDNA library using probe V05756. AM262_11 has some identity with the human ectaxin precursor gene and protein As such, the AM262_11 protein may share some activity. The nucleic acid can be used for expression of recombinant proteins, as tissue, molecular weight or chromosome markers, indicators of generate and sources of probes and primers. They can also be used to generate
                                   W44721;
05-JUN-1998 (first entry)
5-JUN-1998 (first entry)
Amino acid sequence of the secreted protein encoded by clone AM262_11.
Secreted protein; antibody; immunoassay reagent;
Secreted protein; antibody; immunoassay reagent;
nutritional supplement; therapeutic activity; eotaxin precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    anti-protein or anti-DNA antibodies and as components of interaction trap assays etc. The protein is useful for raising antibodies, as immunoassay reagents and as nutritional supplements. The protein may possibly have any of a great variety of therapeutic activities.
                                                                                                                                                                                                                                                                                                                 (GEMY ) GENETICS INST INC.

Bowman M, Evans C, Jacobs K, Lavallie ER, McCly JM, Merberg D, Racie LA, Spaulding V, Treacy M;
WPI; 98-042191/04.
N-PSDB; V05729.
                                                                                                                                                                                                           _note= "not specified"
                                                                                                                                                                   Key Location/Qualifiers
Misc_difference 15
                      standard; Protein; 82 AA
                                                                                                                                                                                                                                                                                                      US-659224.
                                                                                                                                                                                                                                                        11-DEC-1997.
06-JUN-1997; U09878.
07-JUN-1996; US-6592
                                                                                                                                                                                                                                    W09746683-A2.
    T 1
W44721
RESULT
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Score 97; DB 29; Length 82; Pred. No. 8.92e-03;

Query Match Best Local Similarity 100.0%;

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23-JUN-1995; US-494093.
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Whuman: eotaxin.

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Whuman: eotaxin.

Whypersensitivity: liflammation: allergy, asthms. rhinitis;

Whypersensitivity: lung; pneumonia; Loeffler's; syndrome;

Whypersensitivity: lung; pneumonia; Loeffler's; syndrome;

Whypersensitivity: lung; pneumonia; Loeffler's; syndrome;

Whypersensitivity: systemic; lupus erythematosus; SLE;

Whypersensitivitis; systemic; lupus erythematosus; SLE;

Whypersensitivitis; social; systemic; lupus erythematosus; SLE;

Whypersensitivitis; social; systemic; lupus erythematosus;

Whypersensitis; langhylaxis; durg; penicillin;

Whypersensitis; eccema; atopic; urticaria; necrotising; cutaneous;

Whypersensitis; eccema; atopic; urticaria; necrotising; cutaneous;

Whypersensitis; eccema; atopic; urticaria; necrotising; cutaneous;

Whypersensitis; eccema; atopic; unutiple sclerosis;

Whypersensitis; dermation; allograft; graft versus host; cancer;

Notymositis; dermatomyositis; immunosuppression; immunodeficiency;

Wholymyositis; dermatomyositis; immunosuppression; immunodeficiency;

Whypersentence attacks and the symbolymyositis;

Whypersentence atta
                                                                                                                                                                                                                                                                                                                                                                                                                          useful in diagnosis and therapy of pancreatic diseases Claim 8, Page 28-29, English.
The sequences given in WOOGF-66 represent pancreas-derived chemokines, PANEC-1 and PANEC-2. These chemokines are highly expressed and specifically expressed in the pancreas and may therefore be used in diagnostic assays based on chemokine production in cases of inflammation or disease affecting the pancreas. These assays allow the early and accurate diagnosis of pancreatic disorders, and can differentiate between invasive diseases and genetic syndromes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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Pancreas-derived chemokine; PANEC-1; PANEC-2; diagnosis;
inflammation; disease; cancer.
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Pred. No. 8.92e-03;
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W00667 standard; Protein; 97 AA.
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Local Similarity 100.0%;
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12; Conservative
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                                                                                                                                                                                                                                                                                                16-FEB-1996; U02225.
17-FEB-1995; US-390740.
(INCY-) INCYTE PHARM INC.
Bandman O, Coleman R, W
                                   71 dicadpkkwvq 82
                                                   1 DICADPKKKWVQ 12
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                                                                                                                                                                                                                                                                                                                                                                      WPI; 96-393398/39.
                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB; T33527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
WO9700960-A1.
                                                                                                                                                                                                                                                  Homo sapiens
WO9625497-A1
                                                                                                                                                                                                                                                                                 22-AUG-1996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      09-JAN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                             W00667;
 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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DDT
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N-PSDB: 75-787/700.

N-PSDB: 75-787/700.

New isolated human eotaxin gene - used to develop prods. for the diagnosis and treatment of e.g. inflammation, allergies, auto-immune disease, infections and tumours in the diagnosis and treatment of e.g. inflammation, allergies, auto-immune disease, infections and tumours in the diagnosis and treatment of the diagnosis.

The present sequence is human eotaxin (hE), an eosinophil specific chemoattractant capable of stimulating eosinophils (including chemotaxis).

Treatment of hE associated diseases or conditions. The products can be used to treat inflammatory or allergic diseases and conditions, including respiratory allergic diseases or conditions. The products can be used to treat inflammatory of allergic diseases or penemonits.

Continuities hypersensitivity lung diseases or prememonits.

Consinophilic pneumonias such as Loeffler's sydtome and chronic eosinophilic pneumonias interstitial lung diseases (ILD) such as idiopathic pulmonary fibrosis or ILD associated with theumatoid arthritis, systemic lubus erythematosus (SIE), ankylosing spondylitis, systemic anaphylaxis or hypersensitivity or esponses, drug allergies (e.g. to penicillin and cephalosporins), insect sting allergies, inflammatory dermatoses (e.g. to penicillin and cephalosporins), insect sting allergies, inflammatory dermatoses (e.g. to penicillin and cephalosporins), insect sting allergies, inflammatory dermatoses (e.g. to penicillin and electrismic accema, and ulcerative colities, spondyloarthropathies, cercania and ulcerative colities, allergies or defection or vaculities, escende at a products and products can also be used to treat other rejection (e.g. in transplantation) including allocation of the skin or orditions requirement allocations requirement pages and cancers with leukocyte inflammatory responses, includi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          therapy, chemotherapy, therapy for autoimmune disease or other drug
therapy, such as corficosferoid therapy, which causes
immunosuppression), immunosuppression due to (e.g. congenital)
defliciency (e.g in eotaxin) or infectious diseases such as parasitic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                eosinophilic lung tissue obtained from Balb/c mice sensitised to ovalbumin. The amplification product was used as a probe to screen a human genomic library in vector EMBL3 SP6/T7 to obtain the hE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Degenerate primers based on the guinea pig eotaxin amino acid sequence were used for the reverse transcriptase polymerase chain reaction (RT-PCR) amplification of RNA isolated from inflamed,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ol-DEC-1997 (first entry)
Ol-DEC-1997 (first entry)
Human eosinocyte CC type chemokine eotaxin.
Human: eosinocyte; CC type; chemokine; eotaxin; calcium; skin; small intestine; agonist; screening; antagonist; inflammation; antibody; diagnosis; assay; disorder; asthma; allergy; atopic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
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                                               Ringler DJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 97; DB 23; 1
Pred. No. 8.92e-03;
0; Mismatches 0;
                                           Qin S,
LEUKOSITE INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           W14990 standard; Protein; 97 AA.
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Local Similarity 100.0%;
nes 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       71 dicadpkkkwyg 82
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                                                                                  97-087387/08.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
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02-DEC-1997 (first entry)
Guinea pig eosinocyte CC type chemokine eotaxin.
Guinea pig: eosinocyte; CC type; chemokine; eotaxin; calcium; skin; small intestine; agonist; screening; antagonist; inflammation; antibody; diagnosis; assay; disorder; asthma; allergy; atopic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 2; Pages 30-31; 45pp; Japanese.

The present sequence is the guinea pig eosinocyte, CC type chemokine, eotaxin, which increases calcium flux in guinea pig agonists and antagonists, which may be useful as anti-inflammatorles. An anti-eotaxin antibody may be used in diagnostic assays for eotaxin, which is implicated in inflammatorry disorders, e.g. asthma, other allergies and atopic skin
                                                                                                                                                                                                                                                                                                                                                                                                                     Human CC chemokine (eotaxin) active on eosinocytes - useful for screening for eotaxin (ant)agonist(s), e.g. for treating
  T
W14991 standard; Protein; 96 AA.
                                                                                                                                                                                                                                                     01-02T-1996; J02851.
28-FEB-1996; JP-041965.
05-0CT-1995; JP-259067.
(SHIO ) SHIONGI & CO LID.
Harada S, Kitaura M, Naka
                                                                                                                                                                                                                                                                                                                                                                       WPI; 97-226168/20.
N-PSDB; T62945.
                                                                                                                                                                                                            WO9712914-Å1.
10-APR-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        inflammation
                                                                                                                                                                                        Cavia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             treating asthma and other inflammatory diseases.
Claim 6; page 31; 50pp; English.

Ebtaxin is useful for treatment of asthma or other diseases with an inflammatory component, especially accumulation of eosiniphils, e.g. rhinitis or eczema. Eotaxin is obtainable from bronchoalveolar lavage fluid of a subject after antigen challenge; from an inflammatory exudate fluid or from an in vitro culture of macrophages, lymphocytes, neutrophils, mast cells, airway cells, sequence 73 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                             Claim 2; Pages 27-28; 45pp; Japanese.
Claim 2; Pages 27-28; 45pp; Japanese.
The present sequence is the human eosinocyte, CC type
Chemokine, eotaxin, which increases calcium flux in human
eosinocytes and is a human analogue of guinea pig eotaxin. The
eotaxin was derived from human small intestine, and is a specific
agonist for human CC type chemokine receptor 3. It may be used to
screen potential agonists and antagonists, which may be useful as
anti-inflammatories. An anti-eotaxin antibody may be useful as
diagnostic assays for eotaxin, which is implicated in inflammatory
inflammation.
                                                                                                                                                                                   Human CC chemokine (eotaxin) active on eosinocytes - useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Isolated chemo attractant protein, termed eotaxin - useful for treating asthma and other inflammatory diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ectaxin chemoattractant protein.
Botaxin, chemoattractant; inflammatory disease; inflammation; asthma: rhinitis; eczema; macrophage; lymphocyte; neutrophil; mast cell; connective tissue cell; vascular endothelial cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 97; DB 24; Leuyun 27. Pred. No. 8.92e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 91; DB 13; Length 73; Pred. No. 3.75e-02; 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-SEP-1994; G02006.
14-SEP-1993; GB-001894.
29-ARR-1994; GG-008602.
(LUDW-) LUDWIG INST CANCER RES.
GAHE-) NAT HEART & LUNG INST.
GTISSIANSON DA, HSUAN JJ, JOSE PJ, Williams TJ; WPI; 95-131353/17.
                                                                                                                                                                                                              screening for eotaxin (ant)agonist(s), e.g. for treating
                                                            05-0CT-1995; JP-259067.
(SHIO ) SHIONOGI & CO LTD.
Harda S. Kiteura M, Nakajima T;
WPI: 97-226168/20.
N-PSDB; T62944.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         T 5
R70252 standard; protein; 73 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 93.8%;
Best Local Similarity 100.0%;
Matches 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R70252;
30-SEP-1995 (first entry)
                   01-OCT-1996; J02851.
28-FEB-1996; JP-041965.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 DICADPKKKWVQ 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      icadpkkkwvq
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WO9507985-A.
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10-APR-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
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Nakajima T;

cobaya.

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anti-inflammatory agent

Disclosure: Page 5: 27pp; English.

The present sequence represents an analogue, MCP-1 (10-76), of monocyte chemoattractant protein 1 (MCP-1). The analogue, which lacks the chemoattractant protein 1 (MCP-1). The analogue, which lacks the N-terminal amino acids 1-9 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding
                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                 Monocyte chemoattractant protein analogue MCP-1 (10-76). Truncated monocyte chemoattractant protein-1; inhibitor: receptor binding; anti inflammatory; basophil; lymphocyte; allergy; chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) lacks MCP-1 activity and inhibits receptor binding, useful as
                                                                                                   ;
0
                                                            Length 96;
                                                                                                   0; Indels
                                                          Score 91; DB 24; ]
Pred. No. 3.75e-02;
                                                                                                   Mismatches
                                                                                                 0;
                                                                                                                                                                                                                                                                  W13598 standard; peptide; 66 AA.
                                                        Ouery Match 93.8%;
Best Local Similarity 100.0%;
Matches 11; Conservative
                                                                                                                                                                                                                                                                                                           07-NOV-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
                                                                                                                                                                  2 ICADPKKKWVQ 12
                                                                                                                                             71 icadpkkwvg 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gong J, Lewis I;
WPI; 97-165844/16.
                 96 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (LEWI/) LEWIS I
                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens.
CA2152141-A.
                                                                                                                                                                                                                                                                                                                                                                                                                     lung disease.
inflammation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-DEC-1996
                   Seguence
                                                                                                                                                                                                                                                                                          W13598;
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2 ICADPKKKWVO 12

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(LEWI/) LEWIS I.
Gong J, Lewis I;
WPI; 97-165844/16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R87678;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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       NAME OF THE PROPERTY OF THE PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 5; 27pp; English.

The present sequence represents an analogue, MCP-1 (11-76), of monocyte chemotractant protein-1 (MCP-1). The analogue, which lacks the chemotractant protein-1 (MCP-1), acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 creeptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into inflammatory diseases. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably with 75:1 for prior art mutant 7ND.
                                                                                                                                                                      ó;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ô
MCP-1 receptors than prior art mutant versions of MCP-1 e.g. preferably providing 508 inhibition of binding at a 25:1 ratio or less, compared with 75:1 for prior art mutant 7{\rm ND}. Sequence 66 AA;
                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Monocyte chemoattractant protein analogue MCP-1 (9-76). Truncated monocyte chemoattractant protein-1; inhibitor: receptor binding; anti inflammatory; basophil; lymphocyte; allergy; chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                           Monocyte chemoattractant protein analogue MCP-1 (11-76).
Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1) lacks MCP-1 activity and inhibits receptor binding, useful as
                                                                                                                                                                      ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .;
0
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Pred. No. 6.04e-02;
1; Mismatches 1; Indels
                                                                                                                        Length 66;
                                                                                                                                                                    1; Indels
                                                                                                                   Score 89; DB 24; I
Pred. No. 6.04e-02;
1; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JT 9
W13597 standard; peptide; 68 AA.
                                                                                                                                                                                                                                                                                                                                T
W13599 standard; peptide; 67 AA.
                                                                                                                     91.8%;
83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 91.8%;
Best Local Similarity 83.3%;
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-NOV-1997 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                     07-NOV-1997 (first entry)
                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CA152141-A.
20-DEC-1996.
19-UUN-1995, 152141.
19-UUN-1995, CA-152141.
(LEWI/) LEWIS I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     anti-inflammatory agent
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19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
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                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gong J, Lewis I;
WPI; 97-165844/16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lung disease.
                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                 W13599;
                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                   RESULT
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The remaining truncated monocyte chemo:attractant protein-1 (MCP-1) - lacks MCP-1 activity and inhibits receptor binding, useful as anti-inflammatory agent

anti-inflammatory agent

anti-inflammatory agent

Claim 7; Page 5; 27pp; English.

Clemoattractant protein-1 (MCP-1). The analogue, which lacks the

Chemoattractant protein-1 (MCP-1). The analogue, which lacks the

N-terminal amino acids 1-8 of MCP-1). The analogue of MCP-1

as it lacks MCP-1 biological activity and inhibits binding to a MCP-1

CC receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory mediator causing migration of monocytes and other cells e.g. basophils and lymphocytes into component of the architish arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding Cd is an anti-inflammatory diseases e.g. arthritish arteriors of MCP-1 for binding Cd is an anti-inflammatory diseases. The analogue competes more effectively with MCP-1 for binding CC inflammatory diseases in the inflammatory diseases. The analogue competes more effectively with MCP-1 for binding CC inflammatory diseases. The analogue formeter wersions of MCP-1 e.g. preferably providing 50% inhibition of binding at a 25:1 ratio or less, compared with 75:1 for prior art mutant 7ND.

Sequence 68 AA;
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been deleted between these residues"
4..29
5..45
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monocyte chemoattractant protein; MCP-1; mutant; restenosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 89; DB 24; Length 68; Pred. No. 6.04e-02; 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 69;
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07-MOY-1994; U12874.
12-MOY-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC.
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R87678 standard; protein; 69 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 83.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 91.8%;
Best Local Similarity 83.3%;
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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WPI; 95-215051/28.
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1 DICADPKKKWVQ 12
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disulfide_bond
WO9513295-A1.
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Claim 1; Column 27; 21pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                            disulfide bond
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                                                                                                                                                                                                                                                                                                                    (3-Ala) MCP-1
                                                                                                                                                                                                                                                                                                                                                                                   modified_site
                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9513295-A1
                                                                                                                                                                                                                                                                                                      21-FEB-1996
                                                                                                                                                                                                                                                                                                                                               angioplasty
                                                                                                                      Sequence
                                                                                                                                              Query Match
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                                                                                                                                                                                                                                                                                          R87677;
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                                                                                                                                                                                                                                                                                                                                       The present sequence represents an analogue, MCP-1 (8-76), of monocyte chemoattractant protein-1 (MCP-1). The analogue, which lacks the neterinal maino acids 1-7 of MCP-1, acts as an antagonist of MCP-1 as it lacks MCP-1 biological activity and inhibits binding to a MCP-1 receptor. The analogue is useful as an anti-inflammatory agent to block the effects of MCP-1 which is an inflammatory agent to block of monocytes and other cells e.g. basophils and lymphocytes into inflammation sites. MCP-1 has been implicated in allergic and chronic inflammatory diseases e.g. arthritis, arteriosclerosis and several lung diseases. The analogue competes more effectively with MCP-1 for binding providing 50% inhibition of binding at a 25:1 ratio or less, compared with 75:1 for prior art mutant 7ND.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-JUL-1998 (first entry)
Macrophage chemoattractant peptide designated GDCF-2.
Monocyte chemoattractant peptide; MCP; MCP-1; treatment; neoplasm; infection; human; monocyte receptor; chemotactic response; inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                 07-NOV-1997 (first entry)
Monocyte chemoattractant protein analogue MCP-1 (8-76).
Truncated monocyte chemoattractant protein-1; inhibitor;
receptor binding; anti inflammatory; basophil; lymphocyte; allergy;
chronic inflammatory disease; arthritis; arteriosclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                       WPI: 97-165844/16.
N-terminally truncated monocyte chemo:attractant protein-1 (MCP-1)
lacks MCP-1 activity and inhibits receptor binding, useful as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Peptide with chemotactic activity for monocytes - from human monocytes or glioma cells, useful for treating infections and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 89; DB 24; Length 69;
Pred. No. 6.04e-02;
1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Leonard EJ, Robinson EA, Yoshimura T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "pyroglutamic acid"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-FEB-1998.
06-JUN-1995; 466280.
30-MAR-1989; US-330446.
31-JAN-1989; US-304234.
(USSH ) US DEPT HEALTH & HUMAN SERVICES.
Appella E, Leonard EJ, Robinson EA, Yosh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        W40175 standard; Protein; 76 AA.
                                                                          W13596 standard; peptide; 69 AA.
                                                                                                                                                                                                                                                                                                                               Claim 5; Page 5; 27pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           91.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 83.3%;
Matches 10; Conservative
                                                                                                                                                                                                                                                                                                                 anti-inflammatory agent
                                                                                                                                                                                                         20-DEC-1996.
19-JUN-1995; 152141.
19-JUN-1995; CA-152141.
(LEWI/) LEWIS I.
54
              1 DICADPKKKWVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 DICADPKKKWVQ 12
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43 eicadpkgkwvg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98-129909/12.
                                                                                                                                                                                                                                                               Lewis I;
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                                                                                                                                                                                   Homo sapiens.
CA2152141-A.
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                                                                                                                                                                       lung disease.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                        W13596;
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The fundamental contractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of and can be used to treat restenosis.

The endogenous MCP-1 and can be used to treat restenosis.

Solution of Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous.

MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28-Tyr by Leu and/or 30-Arg by Nal. Preferred mutations of 28-Tyr by Leu and/or (4) deletion of amino acids 2-8. The present sequence is a specifically claimed human MCP-1 derivative based on the parent protein disclosed in Rollina, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4655, Nov. 1989.

The peptides can be used to prevent restenosis, e.g. in patients
The present sequence refresents a monocyte chemoattractant peptide (MCP) designated GDCF-2. MCPs can be isolated from human glioma cell line U-105MG (e.g. present sequence) and peripheral blood monouclear leukocytes. MCPs are used for the treatment of neoplasms and infections in humans. Short peptides derived from MCPs can be screened to identify those that can blind to the monocyte receptor without stimulating a chemotactic response. These are potentially useful for treating inflammation associated with monocyte infiltration.
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                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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Monocyte chemotactic protein 1.
Human; monocyte chemoattractant protein; antisense; inhibition; mononuclear cell; lymphocyte; macrophage; smooth muscle cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ô
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                                                                                                                                                                                                                                                                                                                        Length 76;
                                                                                                                                                                                                                                                                                                                                                   Pred. No. 6.04e-02;
1; Mismatches 1; Indels
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1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                            Score 89; DB 30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       undergoing coronary artery angioplasty.
Sequence 76 AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JT 14
W09374 standard; Protein; 76 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R87677 standard; protein; 76 AA.
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                                                                                                                                                                                                                                                                                                                            91.8%;
                                                                                                                                                                                                                                                                                                                                                      Best_Local Similarity 83.3%;
Matches 10; Conservative
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10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rollins B, Zhang YJ;
WPI; 95-215051/28.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 DICADPKKKWVQ 12
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07-NOV-1994; U12874
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 50 eicadpkgkwvg
                                                                                                                                                                                                                                                           76 AA;
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useful for therapy or diagnosis of restenosis, etc.
Disclosure, Column 13-14; 16pp; English.
This is the amino acid sequence of the human monocyte chemoattractant
protein (MCP)-1, a member of the C-C chemokine family. MCP-1 is a potent
stimulator of monocyte chemotaxis and is produced by injured vascular
smooth cells thus attracting monocytes and macrophages which infiltrate
the injured area and release growth factor. This causes proliferation of
the vascular smooth cells resulting in restenosis. The gene sequence can
be used to generate antisense sequences e.g. T48093-7, which can be used
to inhibit in vitro MCP-1 prodn. by monounclear cells e.g. Lymphocytes or
macrophages, or smooth muscle cells, esp. in order to prevent vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human monocyte chemo-attractant protein-1 (MCP-1) derivs. - are capable of inhibiting the monocyte chemo-attractant activity of endogenous MCP-1 and can be used to treat restenosis.

Claim 5; Page 11; 22pp; English.

Monocyte chemoattractant protein-1 (MCP-1) derivatives are mutated such that they inhibit the monocyte chemoattractant activity of endogenous MCP-1, provided that the derivative has not been modified by the substitution of 28-Tyr by Leu and/or 30-Arg by Val. Preferred mutations are: (1) substitution of 28 Tyr by aspartate; (2) substitution of 24 prg by Phe; (3) substitution of 24 Arg by Ala; and/or (4) deletion of anino acids 2-8. The present sequence is a specifically claimed human MCP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 89; DB 20; Length 76;
Pred. No. 6.04e-02;
1; Mismatches 1; Indels
                                                                                                                                                                                                      /note- "encoded by codon AUG"
misc_difference 65
                                                                                                                                                         'note= "encoded by codon CAG"
                                                                                                                                                                                                                                                                                                               /note= "encoded by codon CAC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-MAY-1995.
07-NOV-1994; U12874.
12-NOV-1993; US-152301.
(DAND ) DANA FARBER CANCER INST INC.
RP11ins B, Zhang XJ;
WPI; 95-215051/28.
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                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                         22-OCT-1992; US-965678.
27-MAY-1994; US-250958.
(UNMI) UNIV MICHIGAN.
KUNKel SL, Lyle LR, Strieter RM;
WPI; 96-505405/50.
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R87676 standard; protein; 76 AA.
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Best Local Similarity 83.3%;
Matches 10; Conservative
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22-OCT-1992; 965678.
        vascular restenosis
                                                                                                                                                                                                  misc_difference 51
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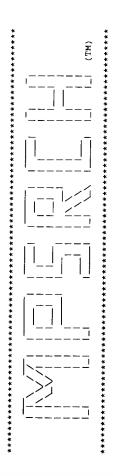
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derivative based on the parent protein disclosed in Rollins, Molecular and Cellular Biology, Vol. 9, No. 11, pp. 4687-4695, Nov. 1989. The peptides can be used to prevent restenosis, e.g. in patients undergoing coronary artery angioplasty.
                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                               0;
                                                                                                                                                            Score 89; DB 14; Length 76;
Pred. No. 6.04e-02;
1; Mismatches 1; Indels
                                                                                                                                                            Query Match
Best Local Similarity 83.3%;
Matches 10; Conservative
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:|||||| |||| 1 DICADPKKKWVQ 12

50 eicadpkykwvg 61

Search completed: Fri Feb 4 17:56:04 2000 Job time: 18 secs.



Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Fri Feb 4 18:03:08 2000; MasPar time 2.53 Seconds 134.084 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-72 (1-12) from US09150813.pep 82 1 KACLNPASPIVK 12

Description: Perfect Score: Sequence:

77977 seqs, 28268293 residues Searched:

PAM 150 Gap 15

Scoring table:

Minimum Match 0% Listing first 45 summaries Post-processing:

Database:

swiss-prot37 1:swissprot

Mean 23.824; Variance 25.490; scale 0.935 Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Pred. No.	5.72P-09	1.65e-07	1.57e-05	3.59e-04	6.630-04	2.23e-03	2.23e-03	1.32e-02	2.35e-02	4.18e-02	4.18e-02	4.18e-02	7.39e-02	7.39e-02	7.39e-02	1.30e-01	1.30e-01	1.30e-01	1.30e-01	3.92e-01	3.92e-01	1.15e+00	1.15e+00
Description	GROWTH REGULATED PROTE	MACROPHAGE INFLAMMATOR		GROWTH REGULATED PROTE	REGULATED	REGULATED		CYTOKINE LIX PRECURSOR	MACROPHAGE INFLAMMATOR	GROWIH REGULATED PROTE	PLATELET BASIC PROTEIN	PLATELET BASIC PROTEIN	GRANULOCYTE CHEMOTACTI	CYTOKINE LIX PRECURSOR	CYTOCHROME P450 1B1 (E	PERMEABILITY FACTOR 2	GROWTH REGULATED PROTE	GROWTH REGULATED PROTE	GROWTH REGULATED PROTE	MACROPHAGE INFLAMMATOR	ALVEOLAR MACROPHAGE CH	MOB-1 PROTEIN PRECURSO	NEUTROPHIL ACTIVATING
QI	GRO_HUMAN	MI2A_HUMAN	MI2B_HUMAN	GRO2_RABIT	GROG_BOVIN	GROA_BOVIN	GROB_BOVIN	LIX_MOUSE	MIP2_MOUSE	GRO_CRIGR	PF4L_PIG	PF4L_HUMAN	GCP2_BOVIN	LIX_RAT	CP1B_RAT	GRO1_RABIT	GRO_RAT	GRO_MOUSE	GRO_CAVPO	MIP2_RAT	AMC2_PIG	INIG_RAT	EN78_HUMAN
DB	Н	-	Н	Н	<del></del> 1	Н	-	Н	Н	7	_	Н	Н	П	~	٦	Н	~	П	Н	Н	Н	IJ
Query Match Length	107	107	107	104	86	104	104	132	100	101	119	128	75	130	543	71	96	96	104	100	117	86	114
Query Match	100.0	93.8	85.4	79.3	78.0	75.6	75.6	72.0	70.7	69.5	69.5	69.5	68.3	68.3	68.3	67.1	67.1	67.1	67.1	9.49	9.49	62.2	62.2
Score	82	77	70	65	64	62	62	59	28	57	57	57	26	26	26	52	52	52	22	53	53	51	51
Result No.	7	7	m	4	S	9	7	ω	σ,	10	11	12	13	14	15	16	17	18	19	20	21	22	23

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THO KHOMARO GRADO THIN KAD	CAMMA TATER CREMOINCIL	UDP-N-ACETYLMURAMATE	INTERFERON-GAMMA INDUC	GAMMA INTERFERON INDUC	VITAMIN D-BINDING PROT	1,4-ALPHA-GLUCAN BRANC	3-HYDROXY-3-METHYLGLUT	NEGATIVE REGULATOR OF	TUBULIN ALPHA CHAIN (F	TUBULIN ALPHA CHAIN.	TUBULIN ALPHA-2 CHAIN.	TUBULIN ALPHA-3 CHAIN.	TUBULIN ALPHA CHAIN, T	TUBULIN ALPHA-3 AND AL	TUBULIN ALPHA CHAIN.	TUBULIN ALPHA-2 CHAIN.	TUBULIN ALPHA CHAIN (A	TUBULIN ALPHA-2/ALPHA-	HYPOTHETICAL 52.9 KD P	GAG POLYPROTEIN [CONTA	GAG POLYPROTEIN CONTA
GCD2 HIMAN	MIG HITMAN	MURC BUCAP	INIG_HUMAN	MIG_MOUSE	VTDB_RABIT	GLGB_SOLTU	HMDH_SCHPO	BIME_EMENI	TBA_LYTPI	TBA_ONCKE	TBA2_DROME	TBA3_DROME	TBAT_ONCMY	TBA3_MOUSE	TBA_BOMMO	TBA2_MOUSE	TBA_TORMA	TBA2_PATVU	YUQP_CAEEL	GAG_MMTVC	GAG_MMTVB
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7.	51	51	20	20	20	20	20	20	49	49	49	49	49	49	49	49	49	49	49	49	49
2.4	25	26	27	28	29	30	31	32	33	34	32	36	37	38	39	40	41	42	43	44	45

## ALIGNMENTS

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1 KACLNPASPIVK 12
                                                                  RESULT
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0
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"Solution structure of GRO/melanoma growth stimulatory activity
determined by 1H NMR spectroscopy.",
J. Blol., CHEM. 269:32909-32315(1994).
-!- FUNCTION: HAS CHEMOTACTIC ACTIVITY FOR NEUTROPHILS. MAY PLAY A
ROLE IN INTELAMMATION AND EXERTS ITS EFFECTS ON ENDOTHELIAL CELLS
IN AN AUTOCRINE FASHION.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                  GOLDS E.E., MASON P., NYIRKOS P.;

"Inflammatory cytokines induce synthesis and secretion of gro protein

and a neutrophil chemotactic factor but not beta 2-microglobulin in

human synovial cells and fibroblasts.";

BIOCHEM. J. 259:585-588(1989).
                                                                                                                                                                          MEDLINE; 89356650.
WEN D., ROWLAND A., DERYNCK R.;
"Expression and secretion of gro/MGSA by stimulated human endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PFAM; PF00048; i18; 1.
CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                     "IH assignment and secondary structure determination of human melanoma growth stimulating activity (MGSA) by NMR spectroscopy."; FEBS LETT. 330:302-306(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE; 94376296.

**RETRENCHER W.J., REILLY D., COLBY T., HESSELGESSER J., HORUK R.;

**FARE SOLUTION STRUCTURE Of melanoma growth stimulating activity.";

J. MOL. BIOL. 242:252-270(1994).
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                                                                                                                                                                                                                                                                                                                                     MEDLINE; 93387459.
FAIRBROTHER W.J., REILLY D., COLBY T., HORUK R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        43 69
45 85
107 AA; 11301 MW; 4DEE921B CRC32;
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Best Local Similarity 100.0%;
Matches 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C-X-C) (CHEMOKINE CXC).
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PIR; S00983; S00983.
PIR; S03976; S03976.
PIR; S13669; S13669.
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PDB; 1MSG; 31-MAR-95.
PDB; 1MSH; 31-MAR-95.
    MEDLINE; 89246368.
                                                                                                                                                          POSSIBLE FUNCTION.
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                                                                                                                                                                                                                                                                                                                STRUCTURE BY NMR
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  S THE TWO PRESENTS FOR SUCCESSION SERVING THE SERVING PRESENT OF SUCCESSION SERVING PROPERTY AND SERVING PROPERTY
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                                                                                          01-FEB-1991 (REL. 17, LAST SEQUENCE UPDATE)
01-JUN-1994 (REL. 29, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN-2-ALPHA PRECURSOR (MIP2-ALPHA) (GROWTH REGULATED PROTEIN BETA) (GRO-BETA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -:- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Cloning and sequencing of a new gro transcript from activated human monocytes: expression in leukocytes and wound tissue."; MOL. CELL. BIOL. 10:5596-5599(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDILINE; 91017578.
HASKILL S., PEACE A., MORRIS J., SPORN S.A., ANISOWICZ A., LEE S.W.,
SMITH T., MARTIN G., RALPH P., SAGER R.;
"Identification of three related human GRO genes encoding cytokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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-!- FUNCTION: PRODUCED BY ACTIVATED MONOCYTES AND NEUTROPHILS AND
EXPRESSED AT SITES OF INFLAMMATION.
                                                                                                                                                                                                                                                                                                                                                                                                                            TEXAMP-OLSON P., GALLEGOS C., BAUER D., MCCLAIN J., SHERRY B., FABRE M., VAN DEVENTER S., CERAMI A.; "Cloning and characterization of cDNAs for murine macrophage inflammatory protein 2 and its human homologues."; J. EXP. MED. 172:911-919(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                  EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MACROPHAGE INFLAMMATORY PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 77; DB 1; Len
Pred. No. 1.65e-07;
1; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2-ALPHA.
BY SIMILARITY.
BY SIMILARITY.
i, 6E431A15 CRC32;
                      107 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
                                                                            01-FEB-1991 (REL. 17, CREATED)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  43 69 E
45 85 E
107 AA; 11389 MW;
                                                                                                                                                                                                                                                                                                                                                                           TISSUE-HISTIOCYTIC LYMPHOMA; MEDLINE; 90354792.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93.9%;
larity 91.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 90377259.
IIDA N., GROTENDORST G.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; M36820; G183629; -.
EMBL; M57731; G183627; -.
PIR; JH0281; JH0281.
MIM; 139110; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; X53799; G34659; -.
                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PFAM; PF00048; 118; 1.
HSSP; P09341; IMGS.
                                                                                                                                                                                                               GRO2 OR GROB OR MIP2A.
HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               35
LT 2
MI2A_HUMAN
P19875;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 functions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CHAIN
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GRO2_RABIT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@ib-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                            PROC. NATL. ACAD. SCI. U.S.A. 87:7732-7736(1990).

-!- FUNCTION: MAY PLAY A ROLE IN INFLAMMATION AND EXERT ITS EFFECTS
ON ENDOTHELIAL CELLS IN AN AUTOCRINE FASHION.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
                                          MI2B_HUMAN STANDARD; PRT; 107 AA.
P19876.
P19876.
P19876.
P19876.
P19876.
P19876.
PEB-1991 (REL. 17, LAST SEQUENCE UPDATE)
O1-FEB-1994 (REL. 29, LAST ANNOTATION UPDATE)
MACROPHACE INFLAMMATORY PROTEIN '2-BETA PRECURSOR (MIP2-BETA) (GROWTH REGULATED PROTEIN GAMMA).
                                                                                                                                                                                                                                                                                                                                MEDLINE; 91017578.
HASKILL S., PEACE A., MORRIS J., SPORN S.A., ANISOWICZ A., LEE S.W., SMITH T., MARTIN G., RALPH P., SAGER R.; "Identification of three related human GRO genes encoding cytokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                     SEQUENCE FROM N.A.

TISSUE-HISTIOCYTIC LYMPHOMA;

MEDLINE; 90354792.

TEKAMP-OLSON P., GALLEGOS C., BAUER D., MCCLAIN J., SHERRY B.,

"Cloning and characterization of cDNAs for murine macrophage inflammatory protein 2 and its human homologues.";

EXP. MED. 172:911-919(1990).
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0
                                                                                                                                                                     EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MACROPHAGE INFLAMMATORY PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 70; DB 1; Length 107; Pred. No. 1.57e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2-BETA.

BY SIMILARITY.

BY SIMILARITY.

AA -> G (IN REF. 2).

4; 6F2A63D2 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; i18; 1.
HSSP; P09341; 1MGS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11342 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     85.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 90.9%;
10; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL: X53800, G34663; -.
EMBL: M36821; G183633; -.
PIR: B38290; B38290.
PIR: JH0282; JH0282.
MIM: 139111;
                                                                                                                                                          (HUMAN)
1 KACLNPASPIVK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     43
45
27
107 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 KACLNPASPIV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   83 KACLNPASPMV 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                        HOMO SAPIENS
                                                                                                                                                                                                                                                                                                                                                                                              PROC. NAIL.
                                                                                                                                                                                                                                                                                                                                                                                 functions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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RESULT

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                           (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YOSHIMURA T., MODI W.S.;
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                   SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCITON: PLAYS A ROLE IN MONOCYTE ADHESION TO THE ENDOTHELIUM.
-!- SIMILARITY: BELONG TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOR C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOYOIDEA; BOVIDAE; BOS
                                                                                                                                                                                                                                                       SCHWARTZ D., CHAVERRI-ALAMADA L., BERLINER J., KIRCHGESSNER T., QUISOMORO D., FANG J., TEKAMP-OLSON P., LUSIS J., FOGELMAN A., TERRITO M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GROWTH REGULATED PROTEIN HOMOLOG.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
0
                                                                                                                                        ORYCTOLAGUS CUNICULUS (RABBIT).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
LAGOMORPHA; LEPORIDAE; ORYCTOLAGUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-DEC-1998 (REL. 37, CREATED)
15-DEC-1998 (REL. 37, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
GROWTH REGULATED PROTEIN HOMOLOG GAMMA PRECURSOR (GRO-GAMMA).
                                                                                                                      PROTEIN HOMOLOG PRECURSOR (GRO HOMOLOG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PSO0471; SMALL_CYTOKINES_CXC; 1.
PFAM; PPEO0048; 118; 1.
HSSP; PO9941; 1MSS.
CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 65; DB 1; Le
Pred. No. 3.59e-04;
3; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BY SIMILARITY.
BY SIMILARITY.
C75AEF07 CRC32;
                                        01-FEB-1996 (REL. 33, CREATED)
01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
01-FEB-1996 (REL. 33, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROBABLE
PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10900 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                79.3%;
70.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; U95811; G2735493; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7; Conservative
STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; U12310; G520743;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BOS TAURUS (BOVINE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              104 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 CLNPASPIVK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              82 CLNPTAPVVK 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                    GROWTH REGULATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GROG_BOVIN
046675;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ·;
                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
YOSHIMURA T., MODI W.S.;
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C.Y.C.) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GROWTH REGULATED PROTEIN HOMOLOG ALPHA.
BY SIMILARITY.
SIMILARITY.
CCFD567E CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                         GROWTH REGULATED PROTEIN HOMOLOG GAMMA.
                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOVINAE; BOS
                                                                                                                                                                                                                                                                                                                                                                       ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOS
                                                                                                                                          ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                                            BOS TAURUS (BOVINE).
EURARXOTA, METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                               15-DEC-1998 (REL. 37, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
GROWTH REGULATED PROTEIN HOMOLOG ALPHA PRECURSOR (GRO-ALPHA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-DEC-1998 (REL. 37, CREATED)
15-DEC-1998 (REL. 37, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
GROWTH REGULATED PROTEIN HOMOLOG BETA PRECURSOR (GRO-BETA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 62; DB 1; Length 104; Pred. No. 2.23e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
                                                                                                                                         0; Indels
                                                                                                               Length 98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                              Score 64; DB 1; L. Pred. No. 6.63e-04;
                                                       BY SIMILARITY.
BY SIMILARITY.
ECCC2B4C CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           104 AA.
                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                          104 AA
                            POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              POTENTIAL.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred.
                                                                                                                                                                                                                                                                                  15-DEC-1998 (REL. 37, CREATED)
15-DEC-1998 (REL. 37, LAST SEQI
15-DEC-1998 (REL. 37, LAST ANNO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10984 MW;
                                                                                   10393 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                75.6%;
70.0%;
                                                                                                              78.0%;
80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; U95812; G2735495; -.
                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. YOSHIMURA I., MODI W.S.;
                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       104
66
82
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98
81
81
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  104 AA;
                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 CLNPASPIVK 12
                                                                                                                                                                     81 CLNPAAPMVK 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       82 CLNPTAPMVK 91
                                                                                                                                                                                              3 CLNPASPIVK 12
                                                                                  98 AA;
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42
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046677:
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GROA_BOVIN
046676;
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                                                       DISULFID
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                                                                                   SEQUENCE
                                                                                                               Query Match
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                             SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
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                                         CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SMITH J.B., HERSCHMAN H.R.;
SMITH J.B., HERSCHMAN H.R.;
"Glucocotticold-attenuated response genes encode intercellular
mediators, including a new C-X- chemokine.";
J. Blol. CHEM. 270:16756-16995).
-!- FUNCTION: MAY PARTICIPALE IN THE RECRUITMENT OF INFLAMMATORY CELLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BY INJURED OR INFECTED TISSUE.
-!- INDUCTION: BY LIPOPOLYSACCHARIDE (LPS).
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-x-C) (CHEMOKINE CXC).
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- SIMILARIIY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                   GROWTH REGULATED PROTEIN HOMOLOG BETA.
BY SIMILARITY.
BY SIMILARITY.
7. 2C63B23D CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MUS MUSCULUS (MOUSE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                    Length 104;
                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                  PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
SIGNAL 1 30 POTENTIAL.
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CYTOKINE LIX.
BY SIMILARITY.
BY SIMILARITY.
i S8C45B6B CRC32;
                                                                                                                                                                                                                                                                                                                                                    Score 62; DB 1; Le
Pred. No. 2.23e-03;
3; Mismatches 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-0CT-1996 (REL. 34, CREATED)
01-0CT-1996 (REL. 34, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MGD; MGI:1096868; SCYB5.
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; i18; 1.
HSSP; P02775; INAP.
                                                                                                                                                                                                                                                                 31 104 GR
40 66 BY
42 82 BY
104 AA; 10950 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      95 B
                                 C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                    75.6%;
70.0%;
                                                                                                                                                                                                    EMBL; U95813; G2735497; -.
                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
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53
55
132 AA;
                                                                                                                                                                                                                                                                                                                                                                Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                     82 CLNPTAPMVK 91
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LIX_MOUSE
P50228;
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -!- SUBDITT: HOMOTETRAMER.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 98285588.
SHAO W. JERVA L.F., WEST J., LOLIS E., SCHWEITZER B.I.;
"Solution structure of murine macrophage inflammatory protein-2.";
BIOCHEMISTRY 37:8303-8313(1998).
-!- FUNCTION: CHEMOTACTIC FOR HUMAN POLYMORPHONUCLEAR LEUKOCYTES BUT DOES NOT INDUCE CHEMOKINESIS OR AN OXIDATIVE BURST.
                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WOLPE S.D., SHERRY B., JUERS D., DAVATELIS G., YURT R.W., CERAMI A.; "Identification and characterization of macrophage inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PILK ONCE, C. M. MIRZ. 29-APR-98.
MCD; MCI:96991; MIPZ.
PROSITE: PSO0471; SMALL_CYTOKINES_CXC; 1.
PROSITE: PSO048; 118; 1.
CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE. SIGNAL.
SIGNAL.
                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MUS MUSCULUS (MOUSE).
EUKARXOTA, METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FABRE W., VAN DEVENTER S., CERAMI A.;
"Cloning and characterization of cDNAs for murine macrophage inflammatcry protein 2 and its human homologues.";
J. EXP. MED. 172:911-919(1990).
Score 59; DB 1; Length 132;
Pred. No. 1.32e-02;
4; Mismatches 1; Indels
                                                               1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 58; DB 1; Length 100;
Pred. No. 2.35e-02;
3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                          01-JUL-1989 (REL. 11, CREATED)
01-FEB-1991 (REL. 17, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 2 PRECURSOR (MIP2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rotein 2.";
PROC. NATL. ACAD. SCI. U.S.A. 86:612-616(1989).
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                                                                                                                                                                                                                                                                                                          100 AA
                                                                                                                                                                                                                                                                                                             PRT;
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larity 54.5%;
Conservative
Query Match 72.0%;
Best Local Similarity 50.0%;
Matches 5; Conservative
                                                                                                                                                                                                                                                                                                          STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; X53798; G53129; -.
                                                                                                                     95 CLDPEAPVIK 104
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Best Local Similarity
                                                                                                                                                        3 CLNPASPIVK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                       MIP2_MOUSE
P10889;
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                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  POWER C.A., PROUDFOOT A.E.I., MAGNENAT E., BACON K., WELLS T.N.C.; "Molecular cloning and characterisation of a neutrophil chemotactic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                             EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA; SCIUROGNATHI; MURIDAE; CRICETINAE; CRICETOLUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUKARYOTA; METAŽOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACIYLA; SUIFORMES; SUINA; SUIDAE; SUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 57; DB 1; Length 101;
Pred. No. 4.18e-02;
''..matches 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY.
3F83AD41 CRC32;
                          01-MAR-1989 (REL. 10, CREATED)
01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
01-DEC-1992 (REL. 24, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
PLATELET BASIC PROTEIN PRECURSOR (PBP)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               119 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BY SIMILARITY.
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                                                                                                                                                                                                                                                                                                                                                                                                          PIR; B28414; B28414.
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM: PF00048; i18; 1.
HSSP; P10889; IMIZ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GRO PROTEIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               POTENTIAL.
                                                                                               CRICETULUS GRISEUS (CHINESE HAMSTER)
                                                                    GROWTH REGULATED PROTEIN PRECURSOR.
     PRT;
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29 101 GR
37 63 BY
39 79 BY
101 AA; 10893 MW; X
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7; Conservative
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    STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              78 ACLNPEAPMV 87
                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2 ACLNPASPIV 11
                                                                                                                                                               88041072
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=PLATELET;
GRO_CRIGR
P09340;
                                                                                                           EUKARYOTA;
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P43030;
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Gaps

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Matches

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                                 RANGE=40-119.
(SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE; 89229374.
WENGER R.H., WICKI A.N., WALZ A., KIEFFER N., CLEMETSON K.J.;
"Cloning of cDNA coding for connective tissue activating peptide III
from a human platelet-derived lambda gtll expression library.";
BLOOD 73:1498-1503(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE; 91170256.
MAJUMDAR S., GONDER D., KOUTSIS B., PONCZ M.;
"Characterization of the human beta-thromboglobulin gene. Comparison with the gene for platelet factor 4.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Characterization of human platelet basic protein, a precursor form of low-affinity platelet factor 4 and beta-thromboglobulin."; BIOCHEMISTRY 25:1988-1996(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                   21-JUL-1986 (REL. 01, CREATED)
01-NOV-1991 (REL. 20, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOFATION UPDATE)
PLATELET BASIC PROTEIN PRECURSOR (PBP) (CONTAINS: CONNECTIVE-TISSUE
ACTIVATING PEPTIDE III (CTAP-III); LOW-AFFINITY PLATELET FACTOR IV
(LA-PF4); BETA-THROMBOGLOBULIN (BETA-TG); NEUTROPHIL-ACTIVATING
PEPTIDE 2 (NAP-2)].
                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                              CYTOKINE; GROWTH FACTOR; CHEMOTAXIS; MITOGEN; PLATELET; SIGNAL
                                                                                                                                                                                                                                                                                                                         ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUKARYOTA; META20A; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                     Score 57; DB 1; Lengtu ... Pred. No. 4.18e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HOLT J.C., HARRIS M.E., HOLT A.M., LANGE E., HENSCHEN A., NIEWIAROWSKI S.;
protein from porcine platelets.";

EUR. J. BIOCHEM. 221:713-719(1994).

-!- FUNCTION: CHEMOATITRACTANT FACTOR FOR NEUTROPHILS.

-!- MASS SPECTROMETRY: MW-8597.5; METHOD-ELECTROSPRAY;

-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                PLATELET BASIC PROTEIN
                                                                                                                                                                                                                                                        SIMILARITY.
SIMILARITY.
6D7F3E47 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                 PRT; 128 AA.
                                                                                                                                                                             PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; 118; 1.
HSSP; P02775; 1NAP.
                                                                                                                                                                                                                          PROBABLE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BIOL. CHEM. 266:5785-5789(1991).
                                                                                                                                                                                                                                                         BY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OR CTAP3 OR TGB1 OR THBGB1
                                                                                                                                                                                                                                                                              12615 MW;
                                                                                                                                                                                                                                                                                                    69.5%;
50.0%;
                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                    EMBL; X77935; G457754; -
                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                  39
119
80
                                                                                                                                                                                                                                                                                                                                                94 KICLDPEAPRIK 105
                                                                                                                                                                                                                                                                                                                                                                     1 KACLNPASPIVK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SAPIENS (HUMAN)
                                                                                                                                                                                                                                              40
54
56
119 AA;
                                                                                                                                                                                                                                                                                                                Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. MEDLINE; 91170256.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE; 86216117
                                                                                                                                                                                                                                                                                                                                                                                                                PF4L_HUMAN
P02775;
                                                                                                                                                                                                                                                         DISULFID
                                                                                                                                                                                                                                                                               SEQUENCE
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                                                                                                                                                                                                                          SIGNAL
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MALKOWSKI M.G., WW J.Y., LAZAR J.B., JOHNSON P.H., EDWARDS B.F.P.;

MALKOWSKI M.G., WW J.Y., LAZAR J.B., JOHNSON P.H., EDWARDS B.F.P.;

"The crystal structure of recombinant human neutrophil-activating peptide-2 (MEL) at 1.9-A resolution.";

"J. BIOL. CHEM. 270:7077-7087(1995).

"INTRACELLULAR CAMP ACCUMULATION, PROSTAGLANDIN EZ SECRETION, AND SYNTHESIS OF HYALURONIC ACID AND SULFATED GLYCOSAMINOGENA CHEMOATRACTANT AND ACTIVATION PROPERPHILS.

"ALSO STIMULARES THE FORMATION AND SECRETION OF PLASMINOGENA ACTIVATOR BY HUMAN SYNOVIAL CELLS. NAP-2 IS A POTENT CHEMOATRACTANT AND ACTIVATION FON NEUTROPHILLS.

"I. FUM. PROTEOLYTIC REMOVAL OF RESIDUES 1-9 PRODUCES THE ACTIVE PEPTIDE CONNECTIVE-TISSUE ACTIVATION PEPTIDE III (CTAP III) (LOW-AFFINITY PLATELET FACTOR IV (LA-PF4)).

"PETIDE CONNECTIVE-TISSUE ACTIVATION PEPTIDE III (CTAP III) (LOW-AFFINITY PLATELET FACTOR IV (LA-PF4)).

"PTM: PROTEOLYTIC REMOVAL OF RESIDUES 1-13 PRODUCES THE ACTIVE PEPTIDE BETA-THROMBOGLOBULIN, WHICH IS RELEASED FROM PLATELETS
                                                                          CASTOR C.W., MILLER J.W., WALZ D.A.; "Structural and biological characteristics of connective tissue activating peptide (CTAP-III), a major human platelet-derived growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDINE; 89193761.
WALZ A., BAGGIOLINI M.;
"A novel cleavage product of beta-thromboglobulin formed in cultures of stimulated mononuclear cells activates human neutrophils.";
BIOCHEM. BIOPHYS. RES. COMMUN. 159:969-981(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WALZ A., BAGGIOLINI M.; "Generation of the neutrophil-activating peptide NAP-2 from platelet basic protein or connective tissue-activating peptide III through
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CASTOR C.W., WALE D.A., RAGSDALE C.G., HOSSLER P.A., SMITH E.M.,
BIGNALL M.C., AARON B.P., MOUNTJOY K.;
"Connective tissue activation. XXXIII. Biologically active cleavage
products of CTAP-III from human platelets.";
BIOCHEM. BIOPHYS. RES. COMMUN. 163:1071-1078(1989).
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EPHN G., LINDLEY I.J.D., AUER M.;
"Purification, crystallization and preliminary X-ray diffraction analysis of recombinant human neutrophil-activating peptide 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Chemical synthesis, purification, and characterization of two inflammatory proteins, neutrophil activating peptide 1 (interleukin-8) and neutrophil activating peptide."; BIOCHEMISTRY 30:3128-3135(1991).
                                                                                                                                                                                                                                                                                                                                                                                        BEGG G.S., PEPPER D.S., CHESTERMAN C.N., MORGAN F.J.; "Complete covalent structure of human beta-thromboglobulin."; BIOCHEMISTRY 17:1739-1744(1978).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLARK-LEWIS I., MOSE B., WALZ A., BAGGIOLINI M., SCOTT G.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 X-RAY CRYSTALLOGRAPHY (1.9 ANGSTROMS) OF 59-128.
                                                                                                                                                                                                                                       PROC. NATL. ACAD. SCI. U.S.A. 80:765-769(1983).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EXP. MED. 171:449-454(1990).
SEQUENCE OF 44-66 AND 125-128. MEDLINE; 83144010.
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MEDLINE, 91175767.
                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 48-126.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF MEDLINE; 891
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MISSING (N-TERMINAL PROCESSING VARIANT). MISSING (N-TERMINAL PROCESSING VARIANT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOS
                                                                                                                                                                                                                                                                             CYTOKINE; CONNECTIVE TISSUE; GROWTH FACTOR; CHEMOTAXIS; MITOGEN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                     PLATELET BASIC PROTEIN (PBP).
LA-PF4 / CTAP-III.
BETA-THROMBOGLOBULIN.
                                                                                                                                                                                                                                                                                                                                                                                                                        Score 57; DB 1; Length 128; Pred. No. 4.18e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                13894 MW; 15B7D1DF CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-FEB-1994 (REL. 28, CREATED)
01-FEB-1994 (REL. 28, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
SCYB6 OR GCP2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     75 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 3; Mismatches
                                                                                                                                                                                                                                                      PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; i18; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C-X-C) (CHEMOKINE CXC).
PIR, B54188; B54188.
PROSITE; PS00411; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; il8; 1.
HSSP; P02775; INAP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CYTOKINE; CHEMOTAXIS; HEPARIN-BINDING.
                                                                                                                                                                                                                                                                                                                                                            NAP-2.
                                                                                                                                                                                                                                                                                             PLATELET; SIGNAL; 3D-STRUCTURE.
                                                                                                                                                                PIR; A39546; TGHU.
PIR; A24448. A24448.
PIR; A37382; A37382.
PDB; INAP; 19-DEC-95.
PDB; ITVX; 11-JAN-97.
SWISS-2DPAGE; P02775; HUMAN.
MIM; 121010; -
                                                                                                                                                                                                                                                                                                                                                                                                                      69.5%; s.larity 50.0%; E.Conservative
                         C-X-C) (CHEMOKINE CXC).
                                                                                                                                                    EMBL; M54995; G181176; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        103 KICLDPDAPRIK 114
                                                                                                                                                                                                                                                                                                                                444 1
48 1
59 1
63 65 1
128 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 KACLNPASPIVK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=KIDNEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCP2_BOVIN
P80221;
                                                                                                                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VARIANT
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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                                                                                                                                                                                                                                                                                                                                                                                        STRAIN-SPRAGUE-DAWLEY;
KELNER G.S., MAKI R.A.;
KELNER G.S., MACIEGERET-LENOIR D., LEE E.D., MAKI R.A.;
SUBMITTED (FEB-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: MAY PARTICIPATE IN THE RECRUITMENT OF INFLAMMATORY CELLS
BY INURED OR INFECTED TISSUE (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C.X.C.) (CHEMOKINE CXC).
MISSING (N-TERMINAL PROCESSING VARIANT).
MISSING (N-TERMINAL PROCESSING VARIANT).
BY SIMILARITY.
BY SIMILARITY.
B747167F CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                               Gaps
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0
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                                                                                                                                                                                                                                                                                                                                    EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 56; DB 1; Length 130;
Pred. No. 7.39e-02;
5; Mismatches 2; Indels
                                                                                                              1; Indels
                                                                                  Length 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-DEC-1998 (REL. 37, CREATED)
15-DEC-1998 (REL. 37, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
CYTOCHROME P450 1B1 (EC 1.14.14.11) (CYPIB1) (P450RAP).
                                                                                  Score 56; DB 1; Lo
Pred. No. 7.39e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5F6C874C CRC32;
                                                                                                                                                                                                                                               01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
                                                                                                              4; Mismatches
                                                                                                                                                                                                                         PRT; 130 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                543 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOKINE LIX.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; U90448; G1899248; -.
PROSITE: PSO0471; SMALL_CYTOKINES_CXC; 1.
PRAM; PF00048; i18; 1.
HSSP; P10889; IMI2.
CYTOKINE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    37 PC
130 CJ
76 BJ
93 BJ
14263 MW;
8
9
38
54
7931 MW;
                                                                                  68.38;
50.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       68.3%;
Similarity 41.7%;
5; Conservative
                                                                                                              5; Conservative
                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RATTUS NORVEGICUS (RAT).
                                                                                                                                                                                                                                                                                                                    RATTUS NORVEGICUS (RAT)
EUKARYOTA; METAZOA; CHOI
                                                                                                                                                                                                                                                                              15-JUL-1998 (REL. 36, I
CYTOKINE LIX PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            91 NVCLDPQAPLIK 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 KACLNPASPIVK 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 38 1
50
52
130 AA;
 1
12
12
75 AA;
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Best Local Similarity
Matches 5; Conser
                                                                                  Query Match
Best Local Similarity
                                                                                                                                      54 CLDPEAPLIK 63
                                                                                                                                                                  3 CLNPASPIVK 12
                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A
                          DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LT 15
CP1B_RAT
Q64678;
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SEQUENCE
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                                                                                                                                                                                                          LIX_RAT
LIX_RAT
P97885;
 VARIANT
              VARIANT
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"Rat CyplB1: an adrenal cytochrome P450 that exhibits sex-dependent expression in livers and kidneys of TCDD-treated animals.";

carcINOGENESIS 16:1319-1327(1995).

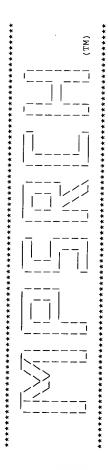
CARCINOGENESIS 16:1319-1327(1995).

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CHONGORDE
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                                                                                                                                                                                   BHATTACHARYTA K.K., BRAKE P.B., ELTOM S.E., OTTO S.A., JEFCOATE C.R., "Identification of a rat adrenal cytochrome P450 active in polycyclic hydrocarbon metabolism as rat CYPIBL. Demonstration of a unique tissue-specific pattern of hormonal and aryl hydrocarbon receptor-linked regulation.";
J. BIOL. CHEM. 270:11595-11602(1995).
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                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
STRAIDS-SERGUE-DAWLEY; TISSUE-LIVER;
MEDLINE, 95308679.
WALKER N.J., GASTEL J.A., COSTA L.T., CLARK G.C., LUCIER G.W.,
SUTTER T.R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ó
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
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Best Local Similarity 60.0%; Pred. No. 7.39e-02;
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EMBL; U09540; G1039377; -.
PROSITE; PSO0086; CYTOCHROME_P450; 1.
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8
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Search completed: Fri Feb 4 18:03:16 2000 Job time : 8 secs.

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MPsrch_pp protein - protein database search, using Smith-Waterman algorithm

Fri Feb 4 18:02:23 2000; MasPar time 3.57 Seconds 134.678 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-72 (1-12) from US09150813.pep 82 Description: Perfect Score:

1 KACLNPASPIVK 12 Sequence:

PAM 150 Gap 15 Scoring table:

122810 seqs, 40068593 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

1:pirl 2:pir2 3:pir3 4:pir4 pir60

Mean 23.040; Variance 28.486; scale 0.809 Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARTES

#authors Anisowicz, A.; Bardwell, L.; Sager, R.
#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84:7188-7192
#title Constitutive overexpression of a growth-regulated gene in transformed Chinese hamster and human cells.

##molecule_type mRNA ##residues 1.107 ##label ANI ##cross-references GB:J03561; NID:g183622; PID:g306806 RNCE SRO983

A28414

#accession

REFERENCE

#title

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13	55	67.1	96	7	A32954		5.026-01
14	55	67.1	96	~	JN0572	neutrophil chemo-attr	5 020-01
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18	23		115	7	E71362		1.356+00
19	53	64.6	117	7	B44253	alveolar macrophage c	1 350+00
20	51	62.2	75	7	A54188	- 7	3 530+00
21	51	62.2	98	7	159277	Mob-1 - rat	3 530+00
22	51	62.2	114	7	A55010	oph	2.556.60
23	51	62.2	125	7	JN0470	interferon gamma-indu	3.53e+00
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Schroeder, J.M.; Sticherling, M.; Henneicke, H.H.; Preissner, W.C.; Christophers, E.

#authors

##molecule_type mRNA ##residues ##cross-references EMBL:X12510; NID:934621; PID:934622 REFERENCE A60401

#authors Richmond, A.; Balentien, E.; Thomas, H.G.; Flaggs, G.; Barton, D.E.; Spiess, J.; Bordoni, R.; Francke, U.; Derynck, R. EMBO J. (1988) 7:2025-2033 #title Molecular characterization and chromosomal mapping of melanoma growth stimulatory activity, a growth factor structurally related to beta thromboglobulin. #accession S00983

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#title IL-lalpha or tumor necrosis factor-alpha stimulate release of three NAP-1/IL-8-related neutrophil chemotactic proteins in human dermal fibroblasts.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Schröeder, J.M.; Persoon, N.L.M.; Christophers, E. J. Exp. Med. (1990) 171:1091-1100
Lipopolysaccharide-stimulated human monocytes secrete, apart from neutrophil-activating peptide l/interleukin 8, a second neutrophil-activating protein. NH-2-terminal amino acid sequence identity with melanoma growth stimulatory activity.
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#product melanoma growth-stimulatory activity #status
experimental #label MAT
#length 107 #molecular-weight 11301 #checksum 1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #journal J Immunol. (1993) 150:1000-1010
#title Identification of a novel granulocyte chemotactic protein (GCP-2) from human tumor cells. In vitro and in vivo comparison with natural forms of GRO, IP-10, and IL-8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JH0281 #type complete macrophage inflammatory protein 2 alpha precursor - human macrophage inflammatory protein beta; melanoma gro-beta; growth regulated protein beta; melanoma growth-stimulatory activity; monocyte adherence-induced
                                                                                                                                                                                                                                 Golds, E.E.; Mason, P.; Nyirkos, P.
Blochem. J. (1989) 259:585-588
Inflammatory cytokines induce synthesis and secretion of protein and a neutrophil chemotactic factor but not beta-2--microglobulin in human synovial cells and
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##residues 35-42, X', 44, X', 46-48 ##label SCH
##experimental_source dermal fibroblasts
NNCE S03975
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##residues 35-63,'X',65 ##label SC2
##experimental_source LPS-stimulated monocytes
SNCE A46519
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Pred. No. 1.57e-07;
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#map_position 4q21-4q21
CLASSIFICATION #superfamily beta-thromboglobulin
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J. Immunol. (1990) 144:2223-2232
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#accession S03976
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Mol. Cell. Biol. (1990) 10:5596-5599
Cloning and sequencing of a new gro transcript from activated
human monocytes: expression in leukocytes and wound tissue.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sporn, S.A.; Elerman, D.F.; Johnson, C.E.; Morris, J.;
Martin, G.; Ladner, M.; Haskill, S.
J. Immunol. (1990) 144444444441
Monocyte adherence results in selective induction of novel
genes sharing homology with mediators of inflammation and
                                         #authors Tekamp-Olson, P.; Gallegos, C.; Bauer, D.; McClain, J.;
Sherry, B.; Fabre, M.; van Deventer, S.; Cerami, A.
J. Exp. Med. (1990) 172:911-919
#title Cloning and characterization of CDNAs for murine macrophage
inflammatory protein 2 and its human homologues.
#cross-references MJID:90354792
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growth-regulated protein gamma; macrophage inflammatory
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31-May-1991 #sequence_revision 27-Oct-1995 #text_change
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#authors Proost, P.; De Wolf-Peeters, C.; Conings, R.; Opdenakker, G.; Billiau, A.; Van Damme, J.

#journal J. Immunol. (1993) 150:1000-1010

#title Identification of a novel granulocyte chemotactic protein (GCP-2) from human tumor cells. In vitro and in vivo comparison with natural forms of GRO, IP-10, and IL-8.
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J. Biol. Chem. (1995) 270:16756-16765
Glucocorticoid-attenuated response genes encode intercellular
mediators, including a new C-X-C chemokine.
                                                                                                                                                                                                                #authors Haskill, S.; Peace, A.; Morris, J.; Sporn, S.A.; Anisowicz, A.; Lee, S.W.; Smith, T.; Martin, G.; Ralph, P.; Sager, R. #journal Proc. Natl. Acad. Sci. U.S.A. (1990) 87:7732-7736 febrification of three related human GRO genes encoding #cross-references MUD:91017578
Sherry, B.; Fabre, M.; van Deventer, S.; Cerami, A.

J. Exp. Med. (1990) 172:911-919

#title cloning and characterization of cDNAs for murine macrophage
inflammatory protein 2 and its human homologues.

#cross-references MUID:90354792
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C-X-C chemokine LIX - mouse
GARG-8/LIX; glucocorticocoid-attenuated response gene 8
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CLASSIFICATION #superfamily beta-thromboglobulin
#SUMMARY #length 132 #molecular-weight 14190 #checksum 2181
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#length 107 #molecular-weight 11342 #checksum 2559
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1; Mismatches 0; Indels
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##cross-references GB:M36821; NID:9183632; PID:9183633
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##experimental_source MG-63 osteosarcoma cells
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Pred. No. 6.55e-02;
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Best Local Similarity 90.9%;
Matches 10; Conservative
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30-Jun-1989 #sequence_revision 30-Jun-1989 #text_change
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Sherry, B.; Fabre, M.; van Deventer, S.; Cerami, A.
J. Exp. Med. (1990) 172:911-919
#title Cloning and characterization of cDNAs for murine macrophage
#cross-references MUID:90354792
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##residues_1-101 ##label ANI
##cross-references GB.J03560; NID:g191088; PID:g304509
##note the authors translated the codon CAG for residue 52 as
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#title Inflammatory protein 2.
#cross-references MUID:89098980
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       Indels
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##residues 1-100 ##label TEK
##cross-references GB:X53798; NID:g53128; PID:g53129
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##residues 28-59 ##label WOL
IFICATION #superfamily beta-thromboglobulin
RDS heparin binding
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growth-regulated protein p
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##residues 1-128 ##label MAJ ##cross-references GB:MS4995; NID:9181175; PID:9181176 ##note the authors translated the codon GAT for residue 109 as
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beta thromboglobulin precursor - human connective-tissue activating peptide III; CTAP-III; histamine-releasing factor; neutrophil-activating peptide
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#formal_name Sus scrofa domestica #common_name domestic pig
06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
#domain signal sequence #status predicted #label SIGN #product growth-regulated protein #status predicted #label MAT
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#journal J. Biol. Chem. (1991) 266:5785-5789
#title Characterization of the human beta-thromboglobulin gene.
Comparison with the gene for platelet factor 4.
#cross-references MUID:91170256
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#cross-references MUID:94229068
#accession 343460
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Pred. No. 1.83e-01;
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Eur. J. Biochem. (1994) 221:713-719
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3; Mismatches 3;
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#journal Biochemiatry (1986) 25:1988-1996
#title Characterization of human platelet basic protein, a precursor form of low-affinity platelet factor 4 and beta-thromboglobulin.
#cross-references MUID:86216117
#accession A24440
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#authors Smith, E.M.; Hossler, P.A.; Fischer, T.; Castor, C.W.;

Gorevic, P.G.; Kaplan, A.P.;

#journal J. Clin. Invest. (1990) 85:1516-1521

#title to connective tissue activating peptide-III.

#cross-references MUID:90237229

#accession A60709

#molecule_type protein

#residues

44-62, X', 64-79 ##label BAE
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Generation of the neutrophil-activating peptide NAP-2 from
platelet basic protein or connective tissue-activating
peptide III through monocyte proteases.
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Proc. Natl. Acad. Sci. U.S.A. (1983) 80:765-769
Structural and biological characteristics of connective
tissue activating peptide (CTAP-III), a major human
platelet-derived growth factor.
peptide III from a human platelet-derived lambdagtII expression library. #cross-references MUID:89229374 #accession A37382
                                                                                                             ##molecule_type mRNA
##residues 1-128 ##label WEN
##cross-references GB:M384915; NID:g181175; PID:g181176; GB:M38441
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##residues 59-62,'X',64-79 ##label KA2
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##residues 44-66;125-128 ##label CAS
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##residues 44-61,'XX',64 ##label KAP
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##residues 48-128 ##label BEG
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##residues 54-67 ##label WAL
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##residues 35-53 ##label HOL
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#accession A93982
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                                                                       οy
                                                       There appears to be a second beta-thromboglobulin-like human gene.

There appears to be a second beta-thromboglobulin-like human gene.

Connective-tissue activating peptides (CTAP) are a group of proteins capable of activating connective tissue cells. CTAP-I.

II, -III and -P2, and -PMN are of lymphoid, tumor cell, human platelet, and polymorphonuclear leukcyte origin, respectively.

CTAP-III, a monomer isolated from platelets, stimulates DNA synthesis, mitosis, glycolysis, intracellular CAMP accumulation, prostaglandin E2 secretion, and synthesis of hyaluronic acid and sulfated glycosaminoglycan. It also stimulates the formation and secretion of plasminogen activator by human synovial cells.

Proteolytic removal of the first four residues of CTAP-III produces the active peptide beta-thromboglobulin, which is released from platelets along with platelet factor 4 and platelet-derived
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Biochemistry (1993) 32:10170-10177
Human and bovine granulocyte chemotactic protein-2: complete
amino acid sequence and functional characterization as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Proost, P.; Wuyts, A.; Conings, R.; Lenaerts, J.P.; Billiau,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            #domain signal sequence #status predicted #label SIG\
#domain propeptide #status predicted #label PRO\
#product connective-tissue activating peptide III
#status experimental #label CTAP\
#product beta-thromboglobulin #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence extracted from NCBI backbone (NCBIP:137967) #superfamily beta-thromboglobulin #length 75 #molecular-weight 7931 #checksum 8842
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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Pred. No. 3.04e-01;
4; Mismatches 1; Indels
                    neutrophil-activating peptide 2 (rhNAP-2).
diffraction analysis of recombinant human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  growth factor; homotetramer; platelet
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#superfamily beta-thromboglobulin
                                                                                                                                                                                                                                                                                                                                                                                                                                          ##cross-references GDB:127391; OMIM:121010
#map_position 4p12-4q13
#introns 50/1; 95/2
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##molecule_type protein
##residues 1-75 ##label PRO
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                                         #cross-references MUID:94307404
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#cross-references MUID:94001982
#accession B54188
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Local Similarity 50.0%;
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larity 50.0%;
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Walker, N.J.; Gastel, J.A.; Costa, L.T.; Clark, G.C.; Lucier,
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#formal_name Xenopus laevis #common_name African clawed frog
10-Apr-1996 #sequence_revision 19-Apr-1996 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                            Demonstration of a unique tissue-specific pattern of hormonal and aryl hydrocarbon receptor-linked regulation. #cross-references MUID:95263485
                                                                                                                                                                                                                                            Bhattacharyya, K.K.; Brake, P.B.; Eltom, S.E.; Otto, S.A.; Jefcoate, C.R.
Jefcoate, C.R.
J. Biol. Chem. (1995) 270:11595-11602
Identification of a rat adrenal cytochrome P450 active in Polycyclic hydrocarbon metabolism as rat CYPIBI.
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Termination of translation in eukaryotes is governed by two interacting polypeptide chain release factors, eRF1 and
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                                                                                           #formal_name Rattus norvegicus #common_name Norway rat
15-Mar-1996 #sequence_revision 15-Mar-1996 #text_change
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Carcinogenesis (1995) 16:1319-1327

Rat CYPIB1: an adrenal cytochrome P450 that exhibits sex dependent expression in livers and kidneys of TCDD-treated animals.
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#length 543 #molecular-weight 60556 #checksum 2773
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##molecule_type mRNA
##residues 1-543 ##label RES
##cross-references EMBL:X03867; NID:g853813; PID:g853814
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148130 #type complete cytochrome P450 1B1 - rat cytochrome P450RAP
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Nakagawa, H.
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                                                                                                                                                                                                         #domain translation elongation factor Tu homology #label
                                                                                ##residues 1-614 ##label ZHO ##cross-references EMBL:L37045; NID:9976218; PID:9976219 ##note the authors translated the codon AGG for residue 573 as
                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Huang, S.; Paulauskis, J.D.; Godleski, J.J.; Kobzik, L. Am. J. Pathol. (1992) 141:1981-988
Expression of macrophage inflammatory protein-2 and KC mRNA in pulmonary inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Oquendo, P.; Alberta, J.; Wen, D.; Graycar, J.L.; Derynck,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gro-alpha precursor - mouse
gro protein; growth regulated protein; melanoma
growth-stimulating activity factor; melanoma mitogenic
protein; secretory protein N51
#formal_name Mus musculus #common_name house mouse
20-oct-1989 #sequence_revision 20-oct-1989 #text_change
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#formal_name Rattus sp. #common_name rat
02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
                                                                                                                                                      #superfamily translation elongation factor Tu homology
GTP binding; P-loop
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#region GTP-binding NKXD motif
#length 614 #checksum 4981
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                                                                                                                                                                                                                                                                                                              Length 614;
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J. Biol. Chem. (1989) 264:4133-4137
                                                                                                                                                                                                                                                                                                              Score 56; DB 2; Le
Pred. No. 3.04e-01;
5; Mismatches 1;
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SUMMARX #length 53 #checksum 8839
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##residues 1-53 ##label RES
##cross-references GB:S45856; NID:9257055
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#accession 164831
                #cross-references MUID:95393983
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Best Local Similarity 60.0%;
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Best Local Similarity 45.5%;
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                                                                  ##molecule_type mRNA
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#authors Ryseck, R.P.; MacDonald-Bravo, H.; Mattei, M.G.; Bravo, R. #journal Exp. Cell Res. (1989) 180:266-275
#title Cloning and sequence of a secretory protein induced by growth factors in mouse fibroblasts.
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##cross-references GB:M86536
##experimental_source alveolar macrophage
##note Cys, AAC for residue 46 as Gln
Cys, AAC for residue 46 as Gln
The platelet-derived growth factor-inducible KC gene encodes a secretory protein related to platelet alpha-granule
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Huang, S.; Paulauskis, J.D.; Kobzik, L.
Biochem. Biophys. Res. Commun. (1992) 184:922-929
Rat KC cDNA cloning and mRNA expression in lung macrophages and fibroblasts.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     #domain signal sequence #status predicted #label SIG\
#product gro-alpha #status predicted #label MAT
#length 96 #molecular-weight 10254 #checksum 5052
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neutrophil chemo-attractant Gro protein precursor - rat
CINC; cytokine-induced neutrophil chemoattractant;
interleukin-8-like chemokine
#formal_name Rattus norvegious #common_name Norway rat
30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sidues 1-96 ##label RYS
This protein is basic and lacks threonine, phenylalanine, and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            #authors Konishi, K.; Takata, Y.; Yamamoto, M.; Yomogida, K.; #authors Watanabe, K.; Tsurufuji, S.; Fujioka, M. Gene (1993) 126:285-286
#fitle Structure of the gene encoding rat neutrophil chemo-attractant Gro.
#cross-references_MUID:93246259
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##residues
##cross-references GB:J04596; NID:9201042; PID:9201043
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extracellular protein
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##residues 1-96 ##label KON
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taccession JQ1519
                                                                                                 #cross-references MUID:89139485
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#product neutrophil chemo-attractant Gro protein #status
experimental #label CYT
#journal
J. Biol. Chem. (1989) 264:19559-19563
#title The neutrophil chemoattractant produced by the rat kidney
epithelloid cell line NRK-52E is a protein related to the
KC/gro protein.
#cross-references MUID:90062049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hanzawa, H.; Haruyama, H.; Watanabe, K.; Tsurufuji, S.
FEBS Lett. (1994) 354:207-212
The three dimensional structure of rat cytokine CINC/Gro in
                                                                                                                                                                                                               #authors Nakagawa, H.; Ikesue, A.; Hatakeyama, S.; Kato, H.; Gotoda, T.; Komorita, N.; Watanabe, K.; Miyai, H.
T.; Komorita, N.; Watanabe, K.; Miyai, H.
Blochem, Pharmacol. (1993) 45:1435-1430
Production of an interleukin-8-1ike chemokine by cytokine-stimulated rat NRK-49F fibroblasts and its suppression by anti-inflammatory steroids.
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#journal Am. J. Pathol. (1992) 141:981-988
#title Expression of macrophage inflammatory protein-2 and KC mRNA
in pulmonary inflammation.
#cross-references MUID:93035653
                                                                                                                                                                                                                                                                                                                                                                                                     ##status preliminary
##molecule_type protein
##residues 25-57 ##label NA2
##experimental_source kidney, NRK-49F fibroblasts
##note sequence extracted from NCBI backbone (NCBIP:129131)
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This protein has chemotactic activity for neutrophils and has melanoma growth-stimulating activity.
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24/1; 65/2; 92/2
#superfamily beta-thromboglobulin
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##residues 25-96 ##label WAT
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**status preliminary; translated from GB/EMBL/DDBJ ##molecule_type mRNA ##resident
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                                                                                                                                                Length 53;
                                                                                                                                            Score 53; DB 2; Le
Pred. No. 1.35e+00;
2; Mismatches 1;
                                                                  ##cross-references GB:S45855; NID:9257054
FICATION #superfamily beta-thromboglobulin
XX #length 53 #checksum 9622
                                                                                                                                                                                                                                                                                                       completed: Fri Feb 4 18:02:50 2000
ne: 27 secs.
                                                   1-53 ##label RES
                                                                                                                                          Query Match 64.6%;
Best Local Similarity 66.7%;
Matches 6; Conservative
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protein - protein database search, using Smith-Waterman algorithm MPsrch_pp

MasPar time 3.52 Seconds 72.537 Million cell updates/sec Fri Feb 4 18:01:46 2000; Run on:

not generated. Tabular output >US-09-150-813-72 (1-12) from US09150813.pep 82 1 KACLNPASPIVK 12

Title: Description: Perfect Score: Sequence:

PAM 150 Gap 15 Scoring table:

170751 seqs, 21266608 residues Searched:

Minimum Match 0% Listing first 45 summaries Post-processing:

Database:

a-geneseq35
l:part2 3:part3 4:part4 5:part5 6:part6 7:part7 8:part8 9:part2 10:part10 11:part11 12:part12 13:part13 14:part14 15:part15 16:part16 17:part17 18:part18 19:part19 20:part20 21:part21 22:part22 23:part23 24:part24 25:part25 26:part26 27:part27 28:part28 29:part29 30:part39 31:part31 32:part34 35:part33 36:part36 37:part37 38:part38 39:part39

Variance 48.942; scale 0.344 Mean 16.819; Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

Result No.	Score	Query Match	° Query Match Length	DB	Ð	Description	Pred. No.
	82	100.0	70	20	R99809	Chemokine-like protei	1 210-02
7	82	100.0	73	39	W81498	Human mature gro-alph	1.216-02
М	82	100.0	73	24	W17670	Human chemokine gro a	1.21e-02
4	82	100.0	73	25	W18024	Human chemokine gro a	1.21e-02
ស	82	100.0	73	12	R66698	Human gro-alpha chemo	1.21e-02
9	82	100.0	101	20	R92318	Chemokine-like protei	1.21e-02
7	82	100.0	107	13	R70792	Melanoma growth stimu	1.21e-02
<b>∞</b>	77	93.8	73	39	W81499	human gro-beta polype	5.07e-02
თ	77	93.9	73	25	W18025	Human chemokine gro b	5.07e-02
10	77	93.9	73	24	W17671	Human chemokine gro b	5.076-02
11	77	93.9	73	12	R66699	Human gro-beta chemok	5.07e-02
12	77	93.9	73	7	R36771	MIP-2alpha.	5.070-02
13	77	93.8	102	13	R70793	Gro-beta/MIP-2-alpha.	5.07e-02
14	77	93.9	107	4	R23034	Human Gro beta cytoki	5.07e-02
15	77	93.8	107	4	R20529	Human macrophage infl	5.07e-02
16	77	93.9	107	4	R20589	Human macrophage infl	5.07e-02
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8.93e-02 2.75e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01 3.63e-01	
Active domain from me Putative glycan bindi GRO alpha.  Human mature gro-gamm Human chemokine gro grore Human chemokine gro gluman chemokine gro gluman chemokine gro gluman chemokine gro gluman copamma chemokine gro gluman crophage infl Human macrophage infl Human macrophage infl Human macrophage infl Murine macrophage infl Macrophal -activating Synthetic NAP-2v.  Connective tissue act Sequence encoded by s CTAP-III heparanase.  Platelet basic protei Leukocyte derived gro Precursor of platelet	
R59808 WW1092 WW1092 WW15092 WW1500 WW1500 WW1500 WW3194 R73035 R73035 R73035 R73035 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R700528 R	
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## ALIGNMENTS

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has been modified by replacing the 2nd active domain (DLQ, R92319)
with an active domain from melanoma growth stimulating factor-alpha
(Gro-alpha, R98080). The resulting protein has the PF-4 lst active
(Gro-alpha, R98080). The resulting protein has the PF-4 lst active
(Gro-alpha, R98080). The resulting protein has the PF-4 lst active
commain, DLQ, before the 1st Cys residue, and the Gro-alpha domain
cys residue. A version with a signal peptide is given in R92318.
The sequence has been derived by mutagenesis of wild-type PF-4
(R99813). The novel chemokine shows higher activity than the wild-
cytype, and may be used to suppress proliferation of actively dividing
myeloid cells, as an adjunctive agent in chemotherapy or radiation
therapy, in therapy of myelogenous leukaemia, polycythaemia vera or
hypermegakaryocytopoietic disorders, or to detect, isolate and expand
propenitor cells ex vivo for transplantation. The protein does not
show adverse neutrophil activation or inflammatory side-effects.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Treating and preventing sepsis in animals - by using two modified gro b chemokines in conjunction with an anti-infective agent gro b chemokines in conjunction with an anti-infective agent sample 1; Page 18; Zepp; English.

This is the amino acid sequence of the human gro-alpha chemokine mature polypeptide. The invention relates to a method of preventing and treating sepsis using chemokines selected from mature or modified murine KC (see W81499), or human gro-alpha, gro-beta (see W81499) or gro-gamma (see W81499). A claimed method uses a dimer composed of 2 modified gro-beta chemokines. Further claimed is administering the chemokine in conjunction with an anti-infective agent. The chemokine in conjunction with an anti-infective creat and prevent sepsis since antimicrobial agents alone have
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Human chemokine gro alpha.

Gro alpha; chemokine; intercrine; myelosuppression;

immunosuppression; haematopoietic cell; infection; cancer;

aplastic anaemia; autoimmune disease; stem cell transplant;

therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human mature gro-alpha polypeptide used to treat sepsis.
Gro-alpha; chemokine; human; sepsis; septic shock; therapy.
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Pred. No. 1.21e-02;
0; Mismatches 0; Indels
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Pred. No. 1.21e-02;
0; Mismatches 0; Indels
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29-APR-1997; US-846966.
SMIK) SMITHKLINE BEECHAM CORP.
Demarsh PL, Johanson KO;
WPI; 99-024031/02.
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W81498 standard; Protein; 73 AA.
W81498;
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Local Similarity 100.0%;
les 12; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              70 AA;
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WO9848828-A1.
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Treating myelosuppression or any condition involving
Treating myelosuppression or any condition involving
Treating myelosuppression or any condition involving
Treating myelosuppression or low levels of haematopoietic cells
Claim 1; Page 20; 31pp; English.

Claim 2; Page 20; 31pp; English.

Claim 3; Page 20; 31pp; English.

Claim 4; Page 20; 31pp; English.

Commandian chemokines selected from gro alpha. Use of
This polypeptide sequence comprises human gro alpha. Use of
Commandian chemokines selected from gro alpha, gro beta (W17671),
Gro gamma (W17672) or KC (W17669) for mobilising haematopoietic
Cc cells is claimed. The chemokines, optionally used together with a
Cc growth factor or other haematopoietic regulator, are used to treat
myelosuppression or any condition that involves immunosuppression
Cc growth factor or other haematopoietic disorders, aplastic anaemia
Cc rautoimmune disease, or low production/differentiation of
Deripheral blood stem cell transplants in patients being treated by
Cc chemotherapy. Chemokines having an N-terminal deletion are more
Cc active, e.g. by 2 orders of magnitude, than the full-length protein.
When used with a colony stimulating factor (CSF), a synergistic
Cc reduced. Compared with conventional methods of stem cell transplants,
Cc use of mammaolian chemokines provides a more rapid release of
Cc peripheral blood mononuclear cells and/or platelets, reducing risk of
Cc infection and allowing use of higher doses of chemotherapeutic
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DeMarsh PL, Johanson KO;

WPI; 97-298111/27.

Use of chemokine(s) such as KC and gro-alpha - to treat or prevent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sepsis, particularly septic shock claim 1; Page 18-19; 28pp; English.

A claimed method of treating or preventing sepsis comprises administering to an animal an effective amount of a chemokine selected from mature murine KC (see W18023), human gro alpha (W18024, human gro bete selected from second selected from mature probable selected from mature selected see W18025) and human gro alpha (see W18025), modified fragments of these chemokines and multimeric proteins comprising an association of two chemokine proteins.
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Human chemokine gro alpha.
Sepsis; septic shock; therapy; gro alpha; chemokine; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5..73 /note= "preferred modified fragment of KC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 82; 22 - 2.
Pred. No. 1.21e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 82; DB 24; Length 73;
                                                         /note= "preferred polypeptide (Claim 3)"
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                   Location/Qualifiers
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W18024 standard; protein; 73 AA.
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Matches 12; Conservative
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21-NOV-1995; US-007425.
                                                                                                                                    US-547262.
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                                                                                                                                                                                   King AG, Pelus LM;
WPI; 97-258957/23.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     73 AA;
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  Homo sapiens.
                                                                               WO9715595-A1.
                                                                                                                     24-0CT-1996;
24-0CT-1995;
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                                        protein
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                                                                                                                                              Gaps
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Sepsis can occur in hospitalised patients, and a consequence of bacterial sepsis is septic shock. The method of the invention provides a treatment for sepsis, particularly septic shock, which is a major cause of death in intensive care units. Septic shock syndrome apparently has intractable resistance to the effects of a variety of highly potent antimicrobial agents. Survival is increased by treatment with the chemokines, both prophylactically and after infection.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-MAR-1997 (first entry)
Chemokine-like protein PF4-414.
Human; chemokine; PF4-414; platelet factor-4; mutant; Gro-alpha; active domain; melanoma growth stimulating factor-alpha; myelosuppressive; cytostatic; antitumour; leukaemia; polycythaemia vera; hypermakaryocytopoiesis; therapy; diagnostic; myeloid progenitor cell; expansion; bone marrow transplantation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 95-036402/05.
New truncated chemokine with increased biological activity - and
                                                                                                                                                                                                                                                                                    Gro-alpha protein; chemokine; inflammation; antiinflammatory; hematopoietic synergistic factor; HSF; hematopoietic precursor; bone marrow; intercrine; desamino gro-alpha; truncation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        related multimers, nucleic acid, antibodies etc., for treating inflammation, stimulating growth of bone marrow etc., also peptide(s) for inducing prowth of bone marrow etc., also bisclosure; Page 51; 89pp; English.

Truncated, desamino chemokine comprising amino acids 5-73 of human mature gro-alpha (full sequence given in R66698) shows enhanced biological activity when compared to the mature protein, and has been used to prepare multimeric, modified
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/note= "desamino truncated gro-alpha, claim 7,
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                                                                                                                   Score 82; DB 25; Length 73;
Pred. No. 1.21e-02;
0; Mismatches 0; Indels
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R92318;
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R66698 standard; protein; 73 AA.
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Best Local Similarity 100.0%;
Matches 12; Conservative
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Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                             entry)
                                                                                                                                                                                                                                                                         Human gro-alpha chemokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                    page 69"
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03-JUN-1994; U06264.
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                                                                                              73 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Balcarek JM,
                                                                                                                                                                                                                                                                                                                     Homo sapiens
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                                                                                                                                                                                                                                                             19-JUL-1995
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Melanoma growth stimulatory activity; gro/MGSA; heparanase; heparin;
heparan sulfate; arthritis; restenosis; cancer; wound healing.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Gro-alpha active domain (R99808, claim 13)"
                                                                                                                                     /note= "Platelet factor-4 active domain (R99823,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            chemokine(s) - provide modified activities, which exhibit high
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                           32..101
/note= "Mature PF4-414 (R99809, claim 14)
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                                                                                                                                                                                                                                                                                                                                                                                                /note= "Conserved Cys residue"
80..90
                                                                                                                                                                                                                                                              'note= "Conserved Cys residue"
                                                                                                                                                                                                                                                                                                                                         'note= "Conserved Cys residue"
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'note= "Signal peptide"
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Best Local Similarity 100.0%;
Matches 12; Conservative
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29-AUG-1995 (first entry)
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                                                                                                                                                                                    claim 1)"
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29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
(UPJO) UPJOHN CO.
HOOGWERF AJ, Ledbetter S
                                                                                                         38..40
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(REPK ) REPLIGEN CORP.
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WPI; 96-239500/24.
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WO9504158-A.
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07-JUN-1995;
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Demarsh PL, Johanson KO;

NR WI; 99-024031/02.

Treating and preventing sepsis in animals - by using two modified group and preventing sepsis in animals - by using two modified grample 1; Page 18: 26pp; English.

Treating and preventing sepsis under the human chemokine gro-beta stample 1: Page 18: 26pp; English.

This is the amino acid sequence of the human chemokine gro-beta mature polypeptide. The invention relates to a method of preventing and treating sepsis using chemokines selected from mature or modified murine RC (see W81499), or human gro-alpha (see W81498), gro-beta or gro-gamma (see W81499). A claimed method uses a dimeric chemokine consisting of 2 covalently linked modified gro-beta proteins (amino acids 5.73 of the mature polypeptide)

In which the proteins are linked by 2 intermolecular disulphide bonds between C5-C31 and C7-C47. Further claimed is administering the chemokine in conjunction with an anti-infective agent. The chemokine sepsis since antimicrobial agents alone have failed to prevent sepsis since antimicrobial agents alone have failed to
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                                                                                                                                                                                                                  Gaps
        N-PSDB; 085362.

Screening for cpds. with anti-heparanase activity - by detecting inhibition of heparin or heparan sulphate degradation, potentially useful for treating arthritis, restenosis, cancer. Claim 12; Page 39; 60pp; English.

Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into pVL1392 baculovirus vector, and expression in Sf9 cells in the presence of reduced glutathione and dithiothreitol.
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                                                                                                                                                                                                                                                                                                                                                  01-WAR-1999 (first entry) human gro-beta polypeptide used to treat sepsis. Gro-beta; chemokine; human; sepsis; septic shock; therapy.
                                                                                                                                                                                      Score 82; DB 13; Length 107;
Pred. No. 1.21e-02;
0; Mismatches 0; Indels
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Human chemokine gro beta.
Sepsis; septic shock; therapy; gro beta; chemokine; human.
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W18025 standard; protein; 73 AA.
W18025;
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W81499 standard; Protein; 73 AA.
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Local Similarity 100.0%;
hes 12; Conservative
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Best Local Similarity 91.7%;
Matches 11; Conservative
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29-APR-1997; US-846966.
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 WPI; 95-082239/11.
                                                                                                                                                               107 AA;
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King A, Pelus LM.

King AG, Pelus LM.

WPI: 97-258957/23.

Treating myelosuppression or any condition involving inmunosuppression or low levels of haematopoietic cells inmunosuppression or low levels of haematopoietic cells claim I; Page 21; 31pp; English.

Trip polypeptide sequence comprises human gro beta. Use of mammalian chemokines selected from gro alpha (W17670), gro beta, gro gamma (W17672) or KC (W17669) for mobilising haematopoietic cells is claimed. The chemokines, optionally used together with a growth factor or other haematopoietic regulator, are used to treat myelosuppression or any condition that involves immunosuppression or nay condition that involves immunosuppression or low levels of haematopoietic cells, e.g. infection, cancer, myelospoietic dysfunction, haematopoietic disorders, aplastic anaemia or autoimmune disease, or low production/differentiation of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Tose of chemothreks) such as not also give appropriate to treat of prevent a sepsis, particularly septics shock claim 1; Page 19; 28pp; English.

Claim 1; Page 19; 28pp; English.

A claimed method of treating or preventing sepsis comprises administering to an animal an effective amount of a chemokine campristering to an animal an effective amount of a chemokine selected from mature murine KC (see W18023), human gro alpha (see W18024), human gro beta (W18025) and human gro gamma (see W18026), modified fragments of these chemokines and multimeric proteins comprising an association of two chemokine proteins.

Sepsis can occur in hospitalised patients, and a consequence of sepsis can occur in hospitalised patients, and a consequence of parterial sepsis is septic shock. The method of the invention provides a treatment for sepsis, particularly septic shock is a major cause of death in intensive care units. Septic shock is yndrome apparently has intractable resistance to the effects of a variety of highly potent antimicrobial agents. Survival is increased by treatment with the chemokines, both prophylactically
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Use of chemokine(s) such as KC and gro-alpha - to treat or prevent
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Gro beta: (hemokine, intercrine; myelosuppression; immunosuppression; haematopoietic cell; infection; cancer; applastic anaemia; autoimmune disease; stem cell transplant;
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Pred. No. 5.07e-02;
1; Mismatches 0; Indels
                                                                                                         /note= "preferred modified fragment of KC
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                               Location/Qualifiers
                                                                                                                                            (Claim 2)"
                                                                                                                                                                                                                                                          (SMIK ) SMITHKLINE BEECHAM CORP. Beharsh PL, Johanson "
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W17671 standard; Protein; 73 AA.
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Best Local Similarity 91.7%;
Matches 11; Conservative
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25-NOV-1997 (first entry)
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24-OCT-1996; U17074.
24-OCT-1995; US-547262.
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20-NOV-1996; U18616.
21-NOV-1995; US-0074
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Homo sapiens.
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haematopoietic or bone marrow cells. A claimed application is in peripheral blood stem cell transplants in patients being treated by chemokines having an N-terminal deletion are more active, e.g. by 2 orders of magnitude, than the full-length protein. When used with a colony stimulating factor (CSF), a synergistic effect is achieved and the dose, and side-effects, of CSF can be reduced. Compared with conventional methods of stem cell transplants, use of mammacolian chemokines provides a more rapid release of peripheral blood mononuclear cells and/or platelets, reducing risk of infection and allowing use of higher doses of chemotherapeutic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Macrophage inflammatory protein; megakaryocytopoiesis; MIP-1; MIP-2; thrombocythemia; reactive thrombocytosis; stroke; emboli; platelet; myeloproliferative disorder.
                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Balcarek JM, Bhatnagar P, King AG, Pelus LM;
WPI; 95-036402/05.
Why fundated chemokine with increased biological activity - and related multimers, nucleic acid, antibodies etc., for treating inflammation, stimulating growth of bone marrow etc., also peptide(s) for inducing haematopoietic synergistic factor. Disclosure; Page 51-52; 89pp; English.
Truncated, desamino chemokine comprising amino acids 5-73 of Truncated, desamino chemokine comprising amino acids 5-73 of
                                                                                                                                                                                                                                                                                                                               Human gro-beta chemokine, Gro-alpha protein; chemokine; inflammation; antiinflammatory; hematopoietic synergistic factor; HSF; hematopoietic precursor; bone marrow; intercrine; desamino gro-beta; truncation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human mature gro-beta (full sequence given in R66699)
shows enhanced biological activity when compared to the mature
protein, and has been used to prepare multimeric, modified
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                                                                                                                                                                 Score 77; DB 24; Length 73;
Pred. No. 5.07e-02;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 77; DB 12; I
Pred. No. 5.07e-02;
I; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                          R66699 standard; protein; 73 AA. R66699;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R36771 standard; protein; 73 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (SMIK ) SMITHKLINE BEECHAM CORP.
                                                                                                                                                                 93.9%;
ilarity 91.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93.9%;
ilarity 91.7%;
Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                  page 68"
                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-DEC-1994.
03-JUN-1994; U06264.
08-JUN-1993; US-073800.
                                                                                                                                                                                                                  49 kaclnpaspmvk 60
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les 11; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       49 kaclnpaspmvk
                                                                                                                                          73 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            73 AA;
                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
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                                                                                                                                                                                                                                                                                                                     19-JUL-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9429341-A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  chemokines.
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                                                                                                                                            Sednence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                   Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                          protein
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                                                                                                                               Suppression of megakaryocytopolesis - by administration of macrophage inflammatory protein-1 or -2 bisclosure; page 18. 26pp; English.

A claimed method for reducing the no. of circulating platelets in the bloodstream of a mammal comprises admin. of MIP-1 and/or MIP-2 or their analogues to induce such a reduction. The MIP-1, MIP-2 or analogue may be operatively linked to a carrier. The MIPs can be used to inhibit megakaryocytopolesis to effect in vivo reduction of platelet nos. They can be used to treat disorders with excessively high platelet counts such as thrombocytosis, stroke, pulmonary emboli sequence 73 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
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Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into pVL1392 baculovirus vector, and expression in Sf9 cells in the presence of reduced glutathione and dithiothreitol.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Macrophage inflammatory protein 2-alpha; gro-beta/MIP-2-alpha;
heparanase; heparin; heparan sulfate; arthritis; restenosis;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 77; DB 7; Length 73;
Pred. No. 5.07e-02;
1; Mismatches 0; Indels
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Cytokine; inflammatory response; MAD-2; cancer diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
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Pred. No. 5.07e-02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R70793 standard; Protein; 102 AA. R70793;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R23034 standard; Protein; 107 AA.
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Best Local Similarity 91.7%;
Matches 11; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 93.9%;
Best Local Similarity 91.7%;
Matches 11; Conservative
13-NOV-1992; U09671.
15-NOV-1991; US-792988.
(UYPE-) UNIV PENNSYLVANIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-AUG-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-OCT-1992 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cancer; wound healing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gro-beta/MIP-2-alpha.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     49 kaclnpaspmvk 60
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26-JUL-1994; U08207
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                                                                                  Gewirtz AM;
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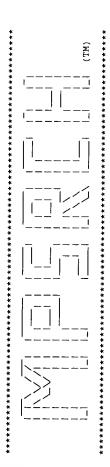
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diagnosing colon cancer claim and control of the colon cancer claim 12; Fig 1B; 46pp; English.

The cDNA clone coding for inflammatory cytokine Gro-beta was The cDNA clone coding for inflammatory cytokine Gro-beta was consolated from a mezerin and calcium ionophore-stimulated leukocyte cDNA library. The amino acid sequence of Gro beta was deduced from the nucleotide sequence. The level of Gro beta in inflammatory cresponse cells can be used as an indication of a test substance's inflammatory activity and to diagnose colon cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
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The sequence was deduced from the DNA sequence obtd. by screening the sequence was deduced from the DNA sequence was deduced from the DNA. The sequence was deduced from the U937 cDNA library prepd. from poly-A+ RNA from PNA treated and LPS stimulated cells, using as probe a fragment isolated from the mMIP-2 cDNA (see Q20728) encoding most of the mature mMIP-2 amino acid sequence. Two classes of human cDNA homologous to mMIP-2 were found designated alpha and beta. The alpha form reproduced here is claimed in W09200327; the beta form (Q20530) is claimed in W09200327; the beta form (Q20530) is claimed in W09200326. The alpha form is the more abundant of the two. The wound healing, to modulate myelopoiesis and to induce adjuvant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human macrophage inflammatory protein 2-alpha - useful in
treating infections, cancer, myelopoietic dysfunction and auto:
immune diseases
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Human macrophage inflammatory protein (MIP) 2 alpha.
Inducible; secretory; inflammatory response; cytokine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                     Location/Qualifiers
                                                                                        1..35
/label= leader
/note= "putative"
36..107
/label= Gro_beta
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R20529 standard; Protein; 107 AA.
R20529;
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WPI; 92-150882/18.
N-PSDB; Q24266.
colonic epithelial tumour cell.
                                                                                                                                                                                                                                                                                                                                                                (CETU ) CETUS CORP.
(UYNC-) UNIV OF NORTH CAROLINA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1..34
/label= signal
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22-JUN-1990; US-541897.
19-JUN-1991; US-715194.
(CHIR-) CHIRON CORP.
Tekamp-Olson P, Gallegos CA;
WPI: 92-Q41519/05.
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Best Local Similarity 91.7%;
Matches 11; Conservative
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28-SEP-1990; US-590223.
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                                  Homo sapiens.
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protein · protein database search, using Smith-Waterman algorithm MPsrch_pp

Fri Feb 4 18:09:28 2000; MasPar time 2.64 Seconds 128.473 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-73 (1-12) from US09150813.pep 86

1 KACLNPASPMVK 12 Title: Description: Perfect Score: Sequence:

Scoring table:

PAM 150 Gap 15

Post-processing:

77977 seqs, 28268293 residues

Searched:

Minimum Match 0% Listing first 45 summaries

Database:

1:swissprot swiss-prot37

Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Mean 24.025; Variance 25.608; scale 0.938

o _{<b>x</b>}	220-10	97-979	89e-07	61e-06	48e-06	.48e-06	22e-04	58e-04	58e-04	58e-04	54e-03	34e-03	50e-02	50e-02	68e-02	68e-02	68e-02	68e-02	3e-02	2.68e-02	3e-02	2.68e-02	68e-02
Pred.	4.2	4			9.4			7.58	7.58	7.58	2.5	8.34	1.5	1.5	2.68	2.6		2.68	2.68	2.68	2.68	2.68	2.6
Description	MACROPHAGE INFLAMMATOR				GROWTH REGULATED PROTE	GROWTH REGULATED PROTE	GROWTH REGULATED PROTE	PERMEABILITY FACTOR 2	GROWTH REGULATED PROTE	GROWTH REGULATED PROTE	GROWTH REGULATED PROTE	MACROPHAGE INFLAMMATOR	PLATELET BASIC PROTEIN	PLATELET BASIC PROTEIN	GRANULOCYTE CHEMOTACTI	CYTOKINE LIX PRECURSOR	TUBULIN ALPHA CHAIN (F	TUBULIN ALPHA-1 CHAIN	TUBULIN ALPHA CHAIN.	TUBULIN ALPHA-4 CHAIN.	TUBULIN ALPHA-2 CHAIN.	TUBULIN ALPHA CHAIN.	TUBULIN ALPHA-6 CHAIN,
SUMMARIES	MIZA HUMAN	MI2B HUMAN	GRO HUMAN	GROG_BOVIN	GROB_BOVIN	GROA_BOVIN	GRO_CRIGR	GRO1_RABIT	GRO_RAT	GRO_CAVPO	GRO2_RABIT	MIP2_MOUSE	PF4L_PIG	PF4L_HUMAN	GCP2_BOVIN	LIX_RAT	TBA_LYTPI	TBA1_CHICK	TBA_ONCKE	TBA4_HUMAN	TBA2_DROME	TBA_XENLA	TBA6_MOUSE
DB	-	ч	Н	Н	Н	П	Н	Н	Н	Н	Н	⊣	٦	Н	Н	-	П	Н	~	Н	-	Н	Н
% Query Match Length	107	107	107	86	104	104	101	7.1	96	104	104	100	119	128	75	130	161	412	444	448	449	449	449
% Query Match	100.0	91.9	89.5	84.9	'n.	82.6	7.97	74.4	74.4	74.4	72.1	8.69	9.89	9.89	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4
Score	86	79	77	73	7.1	71	99	64	64	64	62	9	59	59	28	28	28	28	28	28	28	28	58
Result No.	1	7	n	7	ß	9	7	ω	σ	10	11	12	13	14	15	16	17	18	19	20	21	22	23

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2.68e-02	2.68e-02	2.68e-02	2.68e-02	2.68e-02	2.68e-02	2.68e-02	2.68e-02	2.68e-02	2.68e-02	2.68e-02	2.68e-02	2.68e-02	2.68e-02	2.68e-02	2.68e-02	4.75e-02	4.75e-02	4.75e-02	4.75e-02	4.75e-02	8.39e-02
TUBULIN ALPHA CHAIN.	TUBULIN ALPHA CHAIN.	TUBULIN ALPHA-1 CHAIN.	ALPHA-3		TUBULIN ALPHA CHAIN, T	TUBULIN ALPHA-1 CHAIN	TUBULIN ALPHA CHAIN (A	TUBULIN ALPHA CHAIN.	TUBULIN ALPHA-1 CHAIN.	TUBULIN ALPHA-1 CHAIN.	TUBULIN ALPHA-1 CHAIN,	TUBULIN ALPHA-3 CHAIN	TUBULIN ALPHA-2 CHAIN.	TUBULIN ALPHA-1 CHAIN.	TUBULIN ALPHA-2/ALPHA-	GROWTH REGULATED PROTE	TUBULIN ALPHA CHAIN (F	TUBULIN ALPHA-2 CHAIN	TUBULIN ALPHA CHAIN.	DNA-DIRECTED RNA POLYM	TUBULIN ALPHA-5 CHAIN.
TBA_BOMMO	TBA_NOTVI	TBA1_DROME	TBA3_DROME	TBA3_MOUSE	TBAT_ONCMY	TBA1_HOMAM	TBA_TORMA	TBA_PIG	TBA1_CRIGR	TBA1_MOUSE	TBA1_HUMAN	TBA3_HOMAM	TBA2_MOUSE	TBA1_PARLI	TBA2_PATVU	GRO_MOUSE	TBA_OCTVU	TBA2_HOMAM	TBA_OCTDO	RPOB_NEIME	TBA5_CHICK
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58	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	22	22	22	22	22	26
24	25	56	27	28	29	30	31	32	33	34	35	36	37		30			42		44	45

## ALIGNMENTS

				(GROWTH																	human					3		cine			AND		YTOKINE		
				MIP2-ALPHA)			EUTHERTA:	(1111)					SHERRY B.,		acrophage						n activated					ICZ A . LEE		encoding cytokine					ILY (SMALL (		
	7 AA.	4 1 1	PDATE)	PROTEIN-2-ALPHA PRECURSOR (MIP2-ALPHA)			). CHORDATA: VERTEBRATA: MAMMALIA:						MCCLAIN J.,		"Cloning and characterization of cDNAs for murine macrophage	protein 2 and its human homologues.";					"Cloning and sequencing of a new gro transcript from activated	and wound tissue.				MORRIS I SPORN S.A. ANTSOWICZ A		RO genes		736(1990).	-! - FUNCTION: PRODUCED BY ACTIVATED MONOCYTES AND NEUTROPHILS		SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE		
	; 107	מחמוז פי	TION UE	-ALPHA			TEBRATA	HOMO.					BAUER D.,	Α.;	CDNAS f	man hom					gro tra	es and	. (0			SPORNS	GER R.	human G		7732-77	ED MONC	ATION.	TERCRIN		
	PRT;	CREATED)	ANNOTA	OTEIN-2	(GRO-BETA).		TA: VER	NIDAE;			IA;		C., BAU	CERAMI	ion of	its hu	.6066				a new	eukocyt	288(188			IS T	P., SA	elated		.A. 87:	ACTIVAT	OF INFLAMMATION.	THE IN		
	ARD;	CREP	, LAST	ORY PF	_	A	CHORD	: HOMI			LYMPHOMA;		TEGOS	ER S.,	erizat	2 and	-919(1			G.R.;	ing of	n in l	5596-5					hree r		I. U.S	ED BY	ES OF	NGS TO	E CXC)	
	STANDARD;	(REL. 17,	(REL. 29, LAST ANNOTATION UPDATE	NFLAMMAT	OTEIN BE	OK MIPA	( DOMAIN) ETAZOA;	TARRHINI				54792.	P., GAI	N DEVENT	charact	protein	172:911	FROM N.A.	90377259.	GROTENDORST G.R.;	sednenc	xpressic	CELL. BIOL. 10:5596-5599(1990)	;	91017578	PEACE A.	RTIN G.,	ion of t		ACAD. SC	: PRODUC	D AT SIT	ry: Belc	CHEMOKIN	
1	M12A_HUMAN P19875;	01-FEB-1991 01-FEB-1991	01-JUN-1994	MACROPHAGE INFLAMMATORY	REGULATED PROTEIN BETA)	GROZ OR GROB OR MIPZA.	EUKARYOTA; METAZOA;	PRIMATES; CATARRHINI; HOMINIDAE; HOMO.	1]	SEQUENCE FROM N.A.	TISSUE-HISTIOCYTIC	MEDLINE; 90354792.	TEKAMP-OLSON P., GALLEGOS C.,	FABRE M., VAN DEVENTER S., CERAMI A.;	Cloning and	inflammatory	J. EXP. MED.		MEDLINE; 903	IIDA N., GRO	Cloning and	monocytes: expression in leukocytes		[3]	MEDITNE: 91017578		SMITH T., MARTIN G., RALPH P., SAGER R.;	"Identification of three related human GRO	functions.";	PROC. NATL. ACAD. SCI. U.S.A. 87:7732-7736(1990)	I - FUNCTION	EXPRESSED AT SITES	- SIMILARI	$\overline{}$	
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-!- FUNCTION: MAY PLAY A ROLE IN INFLAMMATION AND EXERT ITS EFFECTS
ON ENDOTHELIAL CELLS IN AN AUTOCRINE FASHION.
-!- SIMILARITY: BELOKUGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-FEB-1991 (REL. 17, LAST SEQUENCE UPDATE)
01-JUN-1994 (REL. 29, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN-2-BETA PRECURSOR (MIP2-BETA) (GROWTH
                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 910,7578.

MENLILS., PEACE A., MORRIS J., SPORN S.A., ANISOWICZ A., LEE S.W. SMITH T., MARTIN G., RALPH P., SAGER R.;

"Identification of three related human GRO genes encoding cytokine"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TEKAMP-ÓLSON P., GALLEGOS C., BAUER D., MCCLAIN J., SHERRY B., FABRE M., VAN DEVENTER S., CERAMI A.; "Cloning and characterization of cDNAs for murine macrophage inflammatory protein 2 and its human homologues."; J. EXP. MED. 172:911-919(1990).
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                         MACROPHAGE INFLAMMATORY PROTEIN
                                                                                                                                                                                                                                                                                     Score 86; DB 1; Length 107;
                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                           CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                     Pred. No. 4.22e-10;
                                                                                                                                                                                                                       BY SIMILARITY.

BY SIMILARITY.

6E431A15 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                107 AA.
                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                          PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; i18; 1.
or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REGULATED PROTEIN GAMMA) (GRO-GAMMA).
                                                                                                                                                                                                           2-ALPHA
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                                                                                                                                                                                                                                                        11389 MW;
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                            EMBL; X53799; G34659; -.
EMBL; M36820; G183629; -.
EMBL; M57731; G183627; -.
PIR; JH0281; JH0281.
MIM; 139110; -.
                                                                                                                                                                                                                                                                                      100.08;
                                                                                                                                                                                                                                                                                                    Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                      12; Conservative
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EMBL; M36821; G183633; -.
PIR; B38290; B38290.
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85
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45
107 AA;
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                                                                                                                                          HSSP; P09341; 1MGS
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MI2B_HUMAN
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                                                                                                                                                                            SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RICHMOND A., BALENTIEN E., THOWAS H.G., FLAGGS G., BARTON D.E., SPIESS J., BORDONI R., FRANCKE U., DERYNCK R.; "Molecular characterization and chromosomal mapping of melanoma prowth stimulatory activity, a growth factor structurally related to beta-thromboglobulin.";
                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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SCHRODERS J.-M., PERSOON N.L.M., CHRISTOPHERS E.;

"Lipopolysaccharide-stimulated human monocytes secrete, apart from neutrophil-activating peptide 1/interleukin 8, a second neutrophil-activating protein. NH2-terminal amino acid sequence identity with melanoma growth stimulatory activity.";

J. EXP. MED. 171:1091-1100(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-MAR-1989 (REL. 10, CREATED)
01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
GROWTH REGILATED POTEIN PRECURSOR (MELANONA GROWTH STIMULATORY
ACTIVITY) (MGSA) (NEUTROPHIL-ACTIVATING PROTEIN 3) (NAP-3).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                   MACROPHAGE INFLAMMATORY PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ANISOWICZ A., BARDWELL L., SAGER R.; "Constitutive overexpression of a growth-regulated gene in transformed Chinese hamster and human cells."; PROC. NATL. ACAD. SCI. U.S.A. 84:7188-7192(1987).
                                                                                                                                                                                                                                                                                                                                                                    Length 107;
                                                                                                                                                                                                                                                                                                                                                                                                                         0; Indels
                                                                                                               CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                               A -> G (IN REF. 2).
6F2A63D2 CRC32;
                                                                                                                                                                                                                                                                                                                                                              Score 79; DB 1; Le
Pred. No. 4.97e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                         0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT; 107 AA.
                                                                                                                                                                                                                        BY SIMILARITY.
BY SIMILARITY.
MIM; 139111; -.
PROSTIE; PSO0471; SMALL_CYTOKINES_CXC; 1.
PFAM; PFO0048; i18; 1.
HSSP; P09341; 1MGS.
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NUCLEIC ACIDS RES. 18:6453-6453(1990).
                                                                                                                                                                                                   2-BETA.
                                                                                                                                                                                                                                                                                     AA
                                                                                                                                                                                                                                                                                                             11342 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GRO1 OR GROA OR GRO OR MGSA. HOMO SAPIENS (HUMAN).
                                                                                                                                                                                                                                                                                                                                                        Local Similarity 100.0%; les 11; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBO J. 7:2025-2033(1988).
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85
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45
27
107 AA;
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P09341;
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STANDARD;

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                                                                                                                                                                                                                                                                                                                                                                                                  -!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                          WEN D., ROWLAND A., DERYNCK R.; "Expression and secretion of gro/MGSA by stimulated human endothelial
                                                                                                                                                                                                                                                                                                                                     determined by 1H NMR spectroscopy.";
J. BIOL. CHEM. 269:32915(1994).

-!- FUNCTION: HAS CHEMOTATIC ACTIVITY FOR NEUTROPHILS. MAY PLAY A
ROLE IN INFLAMMATION AND EXERTS ITS EFFECTS ON ENDOTHELIAL CELLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PFAM; PF00048; 118; 1. -
CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                              FAIRBROTHER W.J., RELLLY D., COLBY T., HORUK R.;
"IH assignment and secondary structure determination of human melanoma growth stimulating activity (MGSA) by NMR spectroscopy."; FEBS LETT. 330:302-396(1993).
                                                                                                                                                                                                                                 FAIRBROTHER W.J., REILLY D., COLBY T., HESSELGESSER J., HORUK R.; "The solution structure of melanoma growth stimulating activity."; J. Mol. BIOL. 242:252-270(1994).
                                                                                                                                                                                                                                                                                                MEDLINE; 95105175.
KIM K.S., CLARK-LEWIS I., SYKES B.D.;
"Solution structure of GRO/melanoma growth stimulatory activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 77; DB 1; Length 107; Pred. No. 1.89e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
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human synovial cells and fibroblasts.";
BIOCHEM. J. 259:585-588(1989).
                                                                                                                                                                                                                                                                                                                                                                                       IN AN AUTOCRINE FASHION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        89.5%;
larity 91.7%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; X12510; G34622; --
EMBL; X344489; G34626; --
PIR; S00983; S00983; PIR; S00983; PIR; S136976; S03976; PIR; S13669; S13669; PDB; IMGS; 30-SEP-94; PDB; IMGS; 31-MAR-95; MIM; 155730;
                                                                                                 EMBO J. 8:1761-1766(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; J03561; G306806; -.
                                                                                                                                                                                                           STRUCTURE BY NMR. MEDLINE; 94376296.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                    MEDLINE; 93387459.
                                   POSSIBLE FUNCTION.
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83 KACLNPASPIVK 94

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RESULT

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                         SEQUENCE FROM N.A.

YOSHHAURA T., MODI W.S.,
YOSHHAURA T., MODI W.S.,
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.

-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).

--- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
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YOSHIMURA I., MODI W.S.;
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C.Y-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL.
GROWTH REGULATED PROTEIN HOMOLOG GAMMA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        POTENTIAL.
GROWTH REGULATED PROTEIN HOMOLOG BETA.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOS
                                                                                                    BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOVINAE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                       15-DEC-1998 (REL. 37, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
GROWTH REGULATED PROTEIN HOMOLOG GAMMA PRECURSOR (GRO-GAMMA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-DEC-1998 (REL. 37, CREATED)
15-DEC-1998 (REL. 37, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
GROWTH REGULATED PROTEIN HOMOLOG BETA PRECURSOR (GRO-BETA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 73; DB 1; Length 98; Pred. No. 2.61e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; U95811; G2735493; -. PROSITE; PSO0471; SMALL_CYTOKINES_CXC; 1. CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ECCC2B4C CRC32;
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BY SIMILARITY
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                    (REL. 37, CREATED)
(REL. 37, LAST SEQI
(REL. 37, LAST ANN
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98 GF
65 BY
81 BY
10393 MW; E
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90.0%;
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                    15-DEC-1998
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046677;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CHAIN
DISULFID
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046675
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US-09-150-813-73.rsp

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YOSHIMTA T., MODI W.S.;
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL.
GROWTH REGULATED PROTEIN HOMOLOG ALPHA.
BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                  Gaps
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RODENTIA; SCIUROGNATHI; MURIDAE; CRICETINAE; CRICETULUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GROWTH REGULATED PROTEIN HOMOLOG ALPHA PRECURSOR (GRO-ALPHA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
MEDLINE; 88041072.
ANISOWICZ A., BARDWELL L., SAGER R.;
CONStitution everexpression of a growth-regulated gene in transformed Chinese hamster and human cells.";
PROC. NATL. ACAD. SCI. U.S.A. 84:7188-7192(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 71; DB 1; Length 104; Pred. No. 9.48e-06;
                                                                                  Score 71; DB 1; Length 104; Pred. No. 9.48e-06;
                                                                                                                                               0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Indels
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CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCFD567E CRC32;
                           2C63B23D CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                      15-DEC-1998 (REL. 37, CREATED)
15-DEC-1998 (REL. 37, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
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01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
01-DEC-1992 (REL. 24, LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                  104 AA.
                                                                                                                                               2; Mismatches
   BY SIMILARITY
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                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
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   42 82 E
104 AA; 10950 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               104 AA; 10984 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match 82.6%;
Local Similarity 80.0%;
nes 8; Conservative
                                                                                        Query Match 82.6%;
Best Local Similarity 80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; U95812; G2735495; -.
                                                                                                                                                  8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C-X-C) (CHEMOKINE CXC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3 CLNPASPMVK 12
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                                                                                                                                                                                                                                                                3 CLNPASPMVK 12
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40
42
                                                                                                                                                                                                                                                                                                                                                TLT 6
GROA_BOVIN
O46676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GRO_CRIGR
P09340;
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                              SEQUENCE
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DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -!- SUBUNIT: HÓMODIMER (PROBABLE).
-!- INDUCTION: GENERATED DURING AN INFLAMMATORY REACTION.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
               -!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-x-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOHNSON M.C., GOODMAN R.B. II, KAJIKAWA O., WONG V.A., MONGOVIN S.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRAINNEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY;
MEDLINE; 91378900.

JOSE P.J., COLLINS P.D., PERKINS J.A., BEAUBIEN B.C., TOTIX N.F.,
WATERFIELD M.D., HEUAN J., WILLIAMS T.J.;
"Identification of a second neutrophil-chemoattractant cytokine
generated during an inflamatory reaction in the rabbit peritoneal
cavity in vivo. Purification, partial amino acid sequence and
structural relationship to melanoma-growth-stimulatory activity.";
BIOCHEM J. 278:493-497(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ó;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JUL-1993 (REL. 26, CREATED)
01-FEB-1996 (REL. 33, LAST SECOUNCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
PERMEABILITY FACTOR 2 (RPF2) (FRAGMENT).
ORYCTOLAGUS CUNICULUS (RABEIT)
EUKANYOTA; METAZOA; CHORDATA; VERTEBRATA; MANMALIA; EUTHERIA;
LAGOMORPHA; LEPORIDAE; ORYCTOLAGUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MARTIN I.R.; "Cloning of two rabbit GRO homologues and their expression in alveolar macrophages."; GENE 151:337-338(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 66; DB 1; Length 101; Pred. No. 2.22e-04; 1; Mismatches 1; Indels
                                                                                                                                                                                                                                                                                                                 CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
-!- FUNCTION: HAS CHEMOTACTIC ACTIVITY FOR NEUTROPHILS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. STRAIN-NEW ZEALAND WHITE; TISSUE-ALVEOLAR MACROPHAGE;
                                                                                                                                                                                                                                                                                                                                                                      37 63 BY SIMILARITY.
39 79 BY SIMILARITY.
101 AA; 10893 MW; 3F83AD41 CRC32;
                                                                                                                                                                                                                                                       PROSITE; PS00471; SWALL_CYTOKINES_CXC; 1.
PFAM; PF00048; i18; 1.
HSSP; P10889; 1M12.
                                                                                                                                                                                                                                                                                                                                                    GRO PROTEIN.
                                                                                                                                                                                                                                                                                                                                     POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                76.7%;
80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8; Conservative
                                                                                                                                                                                                                      EMBL; J03560; G304509; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                         PIR; B28414; B28414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2 ACLNPASPMV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        78 ACLNPEAPMV 87
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                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
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use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KONISHI K., TANNKA Y., YAMAMOTO M., YOMOGIDA K., WATANABE K., TSURUFUJI S., FUJIOKA M.; "Structure of the gene encoding rat neutrophil chemo-attractant Gro."; GENE 126:285-286(1993).
                                                                                                                                                                                                                                                                                                                                                                                       GRO_RAT STANDARD; PRT; 96 AA.
P14095;
01-JAN-1990 (REL. 13, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
GROWTH REGULATED PROTEIN PRECURSOR (CYTOKINE-INDUCED NEUTROPHIL CHEMOATTRACTANT) (CINC-1) (PLATELET-DERIVED GROWTH FACTOR-INDUCIBLE
                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HUANG S., PAULAUSKIS J., KOBZIK L.;
"Rat KC cDNA cloning and mRNA expression in lung macrophages and
fibroblasts.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WATANABE K., KONISHI K., FUJIOKA M., KINOSHITA S., NAKAGAWA H.; "The neutrophil chemoattractant produced by the rat kidney epithelioid cell line NRK-52E is a protein related to the KC/gro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              UANG S., PAULAUSKIS J.D., GODLESKI J.J., KOBZIK L.;
Expression of macrophage inflammatory protein-2 and KC mRNA in
                                                                                                                                                                                                                                                                                          .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RATTUS NORVEGICUS (RAT).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                            Score 64; DB 1; Length 71;
Pred. No. 7.58e-04;
1; Mismatches 1; Indels
                                                                                                                                                                                     N -> S (IN REF. 2).
N -> S (IN REF. 2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BIOCHEM. BIOPHYS. RES. COMMUN. 184:922-929(1992)
                                                                                                                                          CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE.
DISULFID 7 33 BY SIMILARITY.
DISULFID 9 49 BY SIMILARITY.
                                                                                  PIR; S17507; S17507.
PROSITE: PS00411; SNALL_CYTOKINES_CXC; PARTIAL.
PFAM; PF00048; 118; 1.
PSSP; P09341; 1MSH.
                                                                                                                                                                                                                                 C1371890 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BIOL. CHEM. 264:19559-19563(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             pulmonary inflammation.";
AM. J. PATHOL. 141:981-988(1992).
                                                                                                                                                                                                                                 7713 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 36-88 FROM N.A.
                                                                                                                                                                                                                                                            74.48;
81.88;
                                                                                                                                                                                                                                                                                          9; Conservative
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MEDLINE; 93035653.
HUANG S., PAULAUSKIS J.D.
                                                                        EMBL; L19157; G309960; -.
                                                                                                                                                               200 43
                                                                                                                                                                                                                                                                                                                                    2 ACLNPASPMVK 12
                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                     48 ACRNPAAPMVK 58
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SEQUENCE FROM N.A.
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                                                                                                                                                                                                                               71 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE; 93246259
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23
71
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SEQUENCE
                                                                                                                                                                                     CONFLICT
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                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 98162936.
HANZAMA H., HARDYAMA H., KONISHI K., WATANABE K., TSURUFUJI S.;
HANZAMA H., HARDYAMA H., KONISHI K., WATANABE K., TSURUFUJI S.;

"Solution structure of CINC/Gro investigated by heteronuclear NMR.";
J. BIOCHEM. 123:62-70(1998).
-1- FUNCTION: HAS CHEMOTACTIC ACTIVITY FOR NEUTROPHILS. CONTRIBUTES TO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NEUTROPHIL ACTIVATION DURING INFLAMMATION.
--- SUBDNIT: MONOMER AND HOMODIMER.
--- TISSUE SPECIFICITY: AT LEAST EXPRESSED IN THE LUNG AND TRACHEA.
--- INDUCTION: IN LUNG, BY LIPOPOLYSACCHARIDE OR INFLAMMATION.
--- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                       MEDLINE; 95046335.
HANZAMA H., HANZAMA H., WATANABE K., TSURUFUJI S.;
"The three dimensional structure of rat cytokine CINC/Gro in solution by homonuclear 3D NMR.";
                                      novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                               MEDLINE; 97335927.
WHATAMA H., HARUTAMA H., KONISHI K., WATANABE K., ISURUFUJI S.; Subunit association and monomer structure of CINC/Gro revealed by 1H-NMR.";
                                    a
by
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              NAKAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
"Cytokine-induced neutrophil chemoattractant (CINC)-2 alpha, member of rat GRO/CINCs, is a predominant chemokine produced lipopolysaccharide-stimulated rat macrophages in culture.";
BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 64; ~~...
Pred. No. 7.58e-04;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GROWTH REGULATED PROTEIN. BY SIMILARITY. BY SIMILARITY. E49B1A5A CRC32;
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GRO_CAVPO STANDARD; PRT; 104 AA.
GRO_CAVPO STANDARD; PRT; 104 AA.
15-DEC-1998 (REL. 37, CREATED)
15-DEC-1998 (REL. 37, LAST SEQUENCE UPDATE)
GROWTH REGULATED PROTEIN PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PIR; A34481; A34481.
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
                                                                                                                                                                                                                                                                                                                                     BIOCHEM. 121:835-841(1997).
                                                                                                                                                                                                           FEBS LETT. 354:207-212(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10249 MW;
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70.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL, D11445, G220755, -.
EMBL, D11444, G220753, -.
EMBL, M86536, G206687, -.
EMBL, S45856, E62498; -.
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HSSP; P09341; 1MSH.
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Matches 7; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         74 ACLDPEAPMV 83
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MEDLINE; 96183056
                                                                                                                     STRUCTURE BY NMR.
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PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
 or send an email to license@isb-sib.ch).
                                                                                                                                                                         72.1%;
                                                                                                                                                                                     Best Local Similarity 70.0%;
                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; X53798; G53129; -.
                          EMBL; U12310; G520743;
                                                   PFAM; PF00048; 118; 1.
HSSP; P09341; 1MGS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PIR; JH0200; JH0200.
PDB; IMI2; 29-APR-98.
MGD; MGI:96991; MIP2.
                                                                                                                                                                                                                           82 CLNPTAPVVK 91
                                                                                                                                                                                                                                            3 CLNPASPMVK 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE OF 28-59.
                                        PS00471;
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                                                                                                                                                                                                                                                                              12
MIP2_MOUSE
P10889:
                                                                                                                     DISULFID
                                                                                                                                              SEQUENCE
                                                                                                                                   DISULFID
                                        PROSITE;
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                                                                                                                                                      YOSHIMURA T., TAKEYA M., OGATA H., GILLITZER R., SUBMITTED (MAR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: HAS CHEMOTACTIC ACTIVITY FOR NEUTROPHILS.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -!- FUNCTION: PLAYS'A ROLE IN MONOCYTE ADHESION TO THE ENDOTHELIUM.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTORINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SCHWARTZ D., CHAVERRI-ALAMADA L., BERLINER J., KIRCHGESSNER T., QUISOMORO D., FANG J., TEKAMP-OLSON P., LUSIS J., FOGELMAN A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-FEB-1996 (REL. 33, CREATED)
01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
01-FEB-1996 (REL. 33, LAST ANNOTATION UPDATE)
GROWTH REGULARED PROTEIN HOWOLOG PRECURSOR (GRO HOMOLOG).
ORYCTOLAGUS CUNICULUS (RABBIT).
EUKARKOTA; METAZOA, CHORDATA; VETEBRATA; MAMMALIA; EUTHERIA;
LAGOMORPHA; LEPORIDAE; ORYCTOLAGUS.
                        EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA; RODENTIA; HYSTRICOGNATHI; CAVIIDAE; CAVIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 64; DB 1; Length 104; Pred. No. 7.58e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Indels
                                                                                                                                                                                                                                                                                                                                                                EMBL; AF052004; G2981063; -
EMBL; AF052005; G2981065; -
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                     YOSHIMURA T., MODI W.S.;
SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            859F2A19 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        104 AA.
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BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                       POTENTIAL.
GRO PROTEIN.
                                                                                                                             SEQUENCE FROM N.A.
STRAIN-HARTLEY WHITE; TISSUE-SPLEEN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
            CAVIA PORCELLUS (GUINEA PIG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          104 AA; 11069 MW;
                                                                                                                                                                                                             C-X-C) (CHEMOKINE CXC).
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70.08;
                                                                                                                                                                                                                                                                                                                                             EMBL; U95809; G2735489; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        81 ACLDPEAPMV 90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 ACLNPASPMV 11
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                                                                              STRAIN-STRAIN 2;
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P47854;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 89098980.
WOLPE S.D., SHERRY B., JUERS D., DAVATELIS G., YURT R.W., CERAMI A.;
"Identification and characterization of macrophage inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                     GROWTH REGULATED PROTEIN HOMOLOG. BY SIMILARITY.
BY SIMILARITY.
C75ABE07 CR32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE; 90354792.
TERAMP-OLSON P., GALLEGOS C., BAUER D., MCCLAIN J., SHERRY B., FABRE M., VAN DEVENTER S., CERAMI A.;
"Cloning and characterization of cDNAs for murine macrophage inflammatory protein 2 and its human homologues.";
J. EXP. MED. 172:911-919(1990).
                                                                                                                                                                                                                                                                                                                                                .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MUS MUSCULUS (MOUSE).
EURARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                 Score 62; DB 1; Length 104;
Pred. No. 2.54e-03;
                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-0TL-1989 (REL. 11, CREATED)
01-FEB-1991 (REL. 17, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 2 PRECURSOR (MIP2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROC. NATL. ACAD. SCI. U.S.A. 86:612-616(1989)
                                                                                                                                                                                                                                                                                                                                             3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100 AA.
SMALL_CYTOKINES_CXC; 1.
                                                                                                                 PROBABLE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                     32 104 GR
40 66 BY
42 82 BX
104 AA; 10900 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                            POWER C.A., PROUDFOOT A.E.I., MAGNENAT E., BACON K., WELLS T.N.C.;
"Molecular cloning and characterisation of a neutrophil chemotactic
protein from porcine platelets.";
-!- BIOCHEM. 221:713-719(1994).
-!- FUNCTION: CHEMOATTRACTANT FACTOR FOR NEUTROPHILS.
-!- MASS SPECTROMETRY: WW-6597.5; METHOD-ELECTROSPRAY; RANGE-40-119.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKI
C-X-C) (CHEMOKINE CXC).
                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
             INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
                                           MACROPHAGE INFLAMMATORY PROTEIN 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOKINE; GROWTH FACTOR; CHEMOTAXIS; MITOGEN; PLATELET; SIGNAL.
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                                                                                                                                                                                                                                                                                                                                                            SUS SCROFA (PIG).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 59; DB 1; Length 119; Pred. No. 1.50e-02;
                                                                                                                Length 100;
                                                                                                                                           2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PLATELET BASIC PROTEIN
                                                                                                              Score 60; DB 1; LA Pred. No. 8.34e-03;
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                                                                      78
10621 MW; 333AC6A4 CRC32;
                                                                                                                                                                                                                                                                                   01-NOV-1995 (REL. 32, CREATED)
01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
11-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
PLATELET BASIC PROTEIN PRECURSOR (PBP).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  128 AA.
                                                                                                                                           3; Mismatches
                                                                                                                                                                                                                                                            119 AA
                                                                                                                                                                                                                                                                                                                                                                                          ARTIODACTYLA; SUIFORMES; SUINA; SUIDAE; SUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A., AND SEQUENCE OF 40-119
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BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; i18; 1.
HSSP; P02775; INAP.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
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                                                                                                             69.8%;
larity 54.5%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    68.6%;
50.0%;
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                                                                                                                                                                                                                                                            STANDARD;
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                                        100
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119
80
PFAM; PF00048; il8; 1.
                CYTOKINE; CHEMOTAXIS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94 KICLDPEAPRIK 105
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| KACLNPASPMVK 12
                                      28 1
36
38
100 AA;
                                                                                                                                                                       76 KVCLDPEAPLV 86
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54
56
119 /
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P02775;
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PF4L_PIG
P43030;
                                                                    DISULFID
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                            SIGNAL
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MEDLINE; 91170256.
MAJUMDAR S., GONDER D., KOUTSIS B., PONCZ M.;
"Characterization of the human beta-thromboglobulin gene. Comparison with the gene for platelet factor 4.";
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WALZ A., BAGGTOLINI M.;
"A novel cleavage product of beta-thromboglobulin formed in cultures of stimulated mononuclear cells activates human neutrophils.";
BIOCHEM. BIOPHYS. RES. COMMUN. 159:969-981(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WALZ A., BAGGIOLINI M.; "Generation of the neutrophil-activating peptide NAP-2 from platelet basic protein or connective tissue-activating peptide III through
                                                                                                                                                                                                                                                                                                                                                                             MEDILINE; 03-20304.
WENDER R.H., WICKI A.N., WALZ A., KIEFFER N., CLEMETSON K.J.;
"Cloning of cDNA coding for connective tissue activating peptide III
from a human platelet-derived lambda gtll expression library.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       activating peptide (CTAP-III), a major human platelet-derived growth
21-JUL-1986 (REL. 01, CREATED)
01-NOV-1991 (REL. 20, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANOTATION UPDATE)
16-DEC-1998 (REL. 37, LAST ANOTATION UPDATE)
16-DEC-1998 (REL. 37, LAST ANOTATION UPDATE)
17-DEC-1998 (REL. 30, LAST ANOTATION UPDATE)
18-DEATELET BASIC PROTEIN PRECURSOR (PBP) (CONTAINS: CONNECTIVE-TISSUE
ACTIVATING PEPTIDE III (CTAP-III); LOW-AFFINITY PLATELET FACTOR IV
(LA-PF4); BETA THROMBOGLOBULIN (BETA-TG); NEUTROPHIL-ACTIVATING
PPBP OR CTAP? OR TGBI OR THBGBI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Characterization of human platelet basic protein, a precursor form of low-affinity platelet factor 4 and beta-thromboglobulin."; BIOCHEMISTRY 25:1988-1996(1986).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE; 89391960.

CASTOR C.W., WALL D.A., RAGSDALE C.G., HOSSLER P.A., SMITH E.M.,
BIGNALL M.C., ARRON B.P., MOUNTOY K.;

"Connective tissue activation. XXXIII. Biologically active cleavage
products of CTAP-III from human platelets.";

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MEDLINE; 83144010.
CASTOR C.W., MILLER J.W., WALZ D.A.;
"Structural and biological characteristics of connective tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BEGG G.S., PEPPER D.S., CHESTERMAN C.N., MORGAN F.J.; "Complete covalent structure of human beta-thromboglobulin."; BIOCHEMISTRY 17:1739-1744(1978).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HOLT J.C., HARRIS M.E., HOLT A.M., LANGE E., HENSCHEN A., NIEWIAROWSKI S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROC. NATL. ACAD. SCI. U.S.A. 80:765-769(1983).
                                                                                                                                                                                    PRIMATES; CATARRHINI; HOMINIDAE; HOMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EXP. MED. 171:449-454(1990)
                                                                                                                                                                                                                                                                                                                                                                                                                                              3100D 73:1498-1503(1989).
                                                                                                                                                HOMO SAPIENS (HUMAN)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SYNTHESIS OF 59-126. MEDLINE; 91175767.
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MEDLINE; 78187279.
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                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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                                                                                                                                                                     EUKARYOTA;
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1 KACLNPASPMVK 12

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MALKOWSKI M.G., WU J.Y., LAZAR J.B., JOHNSON P.H., EDWARDS B.F.P.;

"The crystal structure of recombinant human neutrophil-activating
peptide-2 (MGL) at 1.9-A resolution.";

"The crystal structure of recombinant human neutrophil-activating
peptide-2 (MGL) at 1.9-A resolution.";

"The CHEM. 270:7077-7087(1995).

"INTRACELLULAR CAMP ACCUMULATES DNA SYNTHESIS, MITOSIS, GIYCOLYSIS,
INTRACELLULAR CAMP ACCUMULATION, PROSTAGLANDIN E2 SECRETION, AND
SYNTHESIS OF HYALURONIC ACID AND SUCRATION OF PLASMINOGEN

C ACIVATOR BY HUMAN SYNOVIAL CELLS. NAP-2 IS A POTENT
CHEMOATTRACTANT AND ACTIVATOR FOR NEUTROPHILS.

C -: FURN STRUCTULIC REMOYAL OF RESIDUES 1-9 PRODUCES THE ACTIVE

C -: SUBUNIT: BETA-THROMBOGLOBULIN IS AN HONOTETRAMER.

C -: PIT: PROTEDLYTIC REMOYAL OF RESIDUES 1-9 PRODUCES THE ACTIVE

PEPTIDE CONNECTIVE-TISSUE ACTIVATING PEPTIDE III (CTAP III) (LOW-
AFFINITY PLATELET FACTOR IV (LA-FP4).

C -: PIT: PROTEDLYTIC REMOYAL OF RESIDUES 1-13 PRODUCES THA ACTIVE
PEPTIDE BETA-THROMBOGLOBULIN, MILCH IS RELEASED FROM PLATELET'S
ALONG WITH PLATELET FACTOR 4 AND PLATELET-DERIVED GROWTH FACTOR.

-: CHEMONINE STALE TRACTOR A AND PLATELET-DERIVED GROWTH FACTOR.

-: CHEMONINE STALE TRACTOR A NUM PLATELET-DERIVED GROWTH FACTOR.

-: CHEMONINE STALE TRACTOR A NUM PLATELET-DERIVED GROWTH FACTOR.

-: CHEMONINE CALLO.
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                                                                                                                                                                            KUNGL A.J., MACHIUS M., HUBER R., SCHWER C., LAM C., ASCHAUER H., EHN G., LINDLEY I.J.D., AUER M.; "Purification, crystallization and preliminary X-ray diffraction analysis, of recombinant human neutrophil-activating peptide 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PFAM; PF00048; i18; 1. CYTOKINE; CHEMOTAXIS; MITOGEN; CHEMOTAXIS; MITOGEN;
                                  "Chemical synthesis, purification, and characterization of two inflammatory proteins, neutrophil activating peptide 1 (interleukin-8) and neutrophil activating peptide.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ó:
CLARK-LEWIS I., MOSE B., WALZ A., BAGGIOLINI M., SCOTT G.J.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PLATELET BASIC PROTEIN (PBP)
LA-PF4 / CTAP-III.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 59; DB 1; Length 128; Pred. No. 1.50e-02; 3; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LA-PF4 / CTAP-III.
BETA-THROMBOGLOBULIN.
NAP-2.
                                                                                                                                                                                                                                                                                                                            X-RAY CRYSTALLOGRAPHY (1.9 ANGSTROMS) OF 59-128.
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PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
                                                                                                  BIOCHEMISTRY 30:3128-3135(1991).
[10]
                                                                                                                                           X-RAY CRYSTALLOGRAPHY OF 59-128.
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SIGNAL 1 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PIR, A39546; TGHU.
PIR, A24448; A24448.
PIR, A37382; A37382.
PDB; 1NPF, 19-DEC-95.
PDB; 1TVX; 11-JAN-97.
SWISS-2DPAGE; P02775; HUMAN.
                                                                                                                                                                                                                                                                                       FEBS LETT. 347:300-303(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Match 68.6%;
Local Similarity 50.0%;
Les 6; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; M54995; G181176; -.
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48
11
59
63
63
128 AA;
                                                                                                                                                             MEDLINE; 94307404
                     AEBERSOLD R.;
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SEQUENCE
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103 KICLDPDAPRIK 114

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PROOST P., WUTTS A., CONINGS R., LENAERTS J.-P., BILLIAU A.,
PROOST P., WUTTS A., CONINGS R., LENAERTS J.-P., BILLIAU A.,
OPDENAKKER G., VAN DAMME J.;
"Human and bovine granulocyte chemotactic protein-2: complete amino
acid sequence and functional characterization as chemokines.";
BIOCHEMISTRY 32:10170-10177 (1993).
-!-FUNCTION: CHEMOTACTIC FOR NEUTROPHIL GRANULOCYTES.
-!-SUMLIARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
C-X-C) (CHEMOKINE CXC).
PIR: B44188:
B54188.
PROSITE: PSO0041; SMALL_CYTOKINES_CXC; 1.
PFAM: PRO0048: 118: 1.
HSSP: P02775; 1NAP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                MISSING (N-TERMINAL PROCESSING VARLANT).
MISSING (N-TERMINAL PROCESSING VARLANT)
MISSING (N-TERMINAL PROCESSING VARLANT)
MISSING (N-TERMINAL PROCESSING VARLANT)
MISSING (N-TERMINAL PROCESSING VARLANT)
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
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                                                                                                                       BOS TAURUS (BOVINE).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOYOIDEA; BOVIDAE; BOSINAE; BOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. 2.68e-02;
                                      01-FEB-1994 (REL. 28, CREATED)
01-FEB-1994 (REL. 28, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
SCYBE OR GCP2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 1;
                75 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 58;
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                PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            75 AA; 7931 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           67.48;
                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
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                                                                                                                                                                                                                  MEDLINE; 94001982.
                                                                                                                                                                                                     TISSUE-KIDNEY;
LT 15
GCP2_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DISULFID
                                                                                                                                                                                   SEQUENCE
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VARIANT
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protein - protein database search, using Smith-Waterman algorithm Fri Feb 4 18:08:36 2000; MasPar time 3.62 Seconds 132.864 Million cell updates/sec MPsrch_pp Run on:

not generated. Tabular output

Title:

>US-09-150-813-73 (1-12) from US09150813.pep 86 Description: Perfect Score: Sequence:

1 KACLNPASPMVK 12

PAM 150 Gap 15 Scoring table:

122810 seqs, 40068593 residues Searched:

Post-processing:

Minimum Match 0% Listing first 45 summaries

pir60 1:pir1 2:pir2 3:pir3 4:pir4 Database:

Mean 23.220; Variance 28.384; scale 0.818 Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

		фP					
Result No.	Score	Query Match	Query Match Length DB	DB	ID	Description	Pred. No.
7	98	100.0	107	5	JH0281	macrophage inflammato	1.276-08
7	79	91.9	107	7	B38290	GRO-damma precursor -	8 69e-07
m	77	89.5	107	~	A28414	melanoma growth-stimu	2.84e-06
4	99	76.7	101	7	B28414	growth-regulated prot	1.53e-03
വ	64	74.4	53	~	164831	gene KC protein - rat	4.58e-03
9	64	74.4	96	~	JN0572	١,	4.58e-03
7	9	69.8	100	7	JH0200	macrophage inflammato	3.91e-02
<b>&amp;</b>	59	9.89	119	7	S42881	platelet basic protei	6.60e-02
σ	59	9.89	128	н	TGHU	beta-thromboglobulin	6.60e-02
10	28	67.4	75	7	B54188	granulocyte chemotact	1.116-01
11	58	67.4	161	Н	UBURAL	tubulin alpha chain -	1.11e-01
12	28	67.4	371	~	A61275	tubulin alpha-2 chain	
13	58	67.4	387	7	S33517	tubulin alpha chain -	ı <del>,  </del>
14	58	67.4	411	Н	UBCHA		٠,
15	58	67.4	444	7	A56635		٠,
16	28	67.4	444	7	S25004		1,116-01
17	58	67.4	448	7	177427	alpha	1.11e-01
18	58	67.4	448	7	A25873	alpha	1 110-01
13	28	67.4	449	7	S00253	alpha	1 110-01
20		67.4	449	~	B26488	alpha-	1 110-01
21	28	67.4	449	~	177428	alpha	1 110-01
22		67.4	450	7	S43138	alpha	1.116-01
23	28	67.4	450	~	177426	alpha	1.11e-01
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1.11e-01	1.11e-01	1.11e-01	1.11e-01	1.11e-01	1.11e-01	•	1.11e-01		1.11e-01	1.11e-01	1.11e-01	1.11e-01	٦.	1.11e-01	1.11e-01	1.11e-01	1.11e-01	1.86e-01	•	1.86e-01
tubulin alpha chain, tubulin alpha-3 chain	al		tubulin alpha-3 chain	tubulin alpha-1 chain	tubulin alpha chain -	tubulin alpha chain -	tubulin alpha chain -	pha	pha	pha	pha-	tubulin alpha chain,	tubulin alpha-1 chain	tubulin alpha chain -	tubulin alpha chain -	tubulin alpha chain -	SUP35 protein - Afric	gro-alpha precursor -	$\overline{}$	alpha
A56622 C26488	A26488	S52152	C24903	A24903	UBPGA	A48433	UBRTA	A23035	177424	177425	B24903	JC4133	177403	S42033	S11207	A60671	S58444	A32954	A61544	S43425
50 2																				
4 4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	φ		7	4
67.4 67.4	67.4	7	67.4	$\sim$	$\sim$	$\sim$	67.4	^	^		7	$\sim$	$\sim$	^	67.4	^	$\sim$	10	IO	10
58 58	58	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	22	27	27
24	26	27	28	59	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

### ALIGNMENTS

RESULT 1	
ENTRY	JH0281 #type complete
TITLE	hage
ALTERNATE_NAMES	
	protein 2
ORGANISM	#formal_name Homo sapiens #common_name man
DATE	30-Sep-1991 #sequence_revision 30-Sep-1991 #text_change 31-Oct-1997
ACCESSIONS	JH0281: A35931. A38990. A60407
REFERENCE	10010011
#authors	Tekamp-Olson, P.; Gallegos, C.; Bauer, D.; McClain, J.:
	•
#journal	
#title	Cloning and characterization of cDNAs for murine macrophage
	inflammatory protein 2 and its human homologues.
#CLOSS-relere	ICES MULD: 90354/92
#accession	JH0281
##morecure_type mkna	
##residues	##residues1-107 ##label TEK
##cross-re	cerences GB:X53799; NID:g34658; PID:q34659
REFERENCE	
#authors	Iida, N.; Grotendorst, G.R.
#journal	Mol. Cell. Biol. (1990) 10:5596-5599
#title	Cloning and sequencing of a new gro transcript from activated
	human monocytes: expression in leukocytes and wound tissue.
#cross-refere	ices MUID:90377259
#accession	A35931
##molecule_type mRNA	type mrna
##residues	1-107 ##label IID
##Cross-re	##cross-references GB:M57731; GB:M36964; NID:q183626; PID:q183627
REFERENCE	
#authors	Haskill, S.; Peace, A.; Morris, J.; Sporn, S.A.; Anisowicz,
	A.; Lee, S.W.; Smith, T.; Martin, G.; Ralph, P.; Sager, R.
#journal	,
#title	Identification of three related human GRO genes encoding
:	cytokine functions.
#Cross-reterer	#cross-reterences MUID:91017578
#accession	A38290
##molecule_type mRNA	type mrna
##residues	1-107 ##label HAS
##Cross-ref	##cross-references GB:M36820; NID:q183628; PID:q183629
REFERENCE	A60407
#authors	Sporn, S.A.; Elerman, D.F.; Johnson, C.E.; Morris, J.;
#journal	.d. Imminol (1990) 144.4434-4441
#title	Monocyte adherence results in selective induction of novel

#length 107 #molecular-weight 11342 #checksum 2559

SUMMARY

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#authors Proost, P.; De Wolf-Peeters, C.; Conings, R.; Opdenakker, G.;
Billiau, A.; Van Damme, J.
#journal J. Immunol. (1993) 150:1000-1010
#title Identification of a novel granulocyte chemotactic protein (GCP-2) from human tumor cells. In vitro and in vivo comparison with natural forms of GRO, IP-10, and IL-8.#cross-references MUID:93139489
                                                                                                                                                                                                                                                                            #product macrophage inflammatory protein 2 alpha #status
predicted #label MAT
#length 107 #molecular-weight 11389 #checksum 929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                #authors Haskill, S.; Peace, A.; Morris, J.; Sporn, S.A.; Anisowicz, A.; Lee, S.W.; Smith, T.; Martin, G.; Ralph, P.; Sager, R. #journal Proc. Natl. Acad. Sci. U.S.A. (1990) 87:7732-7736 #title Identification of three related human GRO genes encoding cytokine functions.
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#journal J. Exp. Med. (1990) 172:911-919
#title Cloning and characterization of CDNAs for murine macrophage inflammatory protein 2 and its human homologues.
#cross_references_MUID:90354792
genes sharing homology with mediators of inflammation and
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31-May-1991 #sequence_revision 27-Oct-1995 #text_change
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growth-regulated protein gamma; macrophage inflammatory
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ##molecule_type mRNA
##residues 1-107 ##label TEK
##cross-references GB:X53800; NID:g34662; PID:g34663
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##residues 35-52 ##label PRO
##experimental_source MG-63 osteosarcoma cells
                                                                                                                                                                                                                                                                                                                                                                                        Score 86; DB 2; Le
Pred. No. 1.27e-08;
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inflammation
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                                                                                                                                                      56-107 ##label SPO
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                             tissue repair. #cross-references MUID:90257367
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Best Local Similarity 100.0%;
Matches 12; Conservative
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##molecule_type mRNA
                                                                                                                           ##molecule_type mRNA
##residues 56-10
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CLASSIFICATION #supe
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35-107
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Schroeder, J.M.; Sticherling, M.; Henneicke, H.H.; Preissner, W.C.; Christophers, E. J. Immunol. (1990) 144:2223-2232 IL-lalpha or tumor necrosis factor-alpha stimulate release of three NAP-1/IL-8-related neutrophil chemotactic proteins in human dermal fibroblasts.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Golds, E.E.; Mason, P.; Nyirkos, P.
Biochem. J. (1989) 259:585-588
Inflammatorry cytokines induce synthesis and secretion of gro
protein and a neutrophil chemotactic factor but not
beta-2--microglobulin in human synovial cells and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          #journal Nucleic Acids Res. (1990) 18:6453
#title Nucleotide sequence of the human melanoma growth stimulatory
activity (MGSA) gene.
#cross-references MUID:91057157
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                                                                                                                                                                                                                                                               melanoma growth-stimulatory activity precursor - human fibroblast-derived neutrophil-activating protein gamma; GRO-alpha; growth regulated protein; MGSA; NAP-3 melanoma mitogenic protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   #authors Anisowicz, A.; Bardwell, L.; Sager, R.
#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84:7188-7192
#title Constitutive overexpression of a growth-regulated gene in transformed Chinese hamster and human cells.
#cross-references MUID:88041072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              #fitle Molecular characterization and chromosomal mapping of melanoma growth stimulatory activity, a growth factor structurally related to beta-thromboglobulin. #cross-references MUID:88328991
                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                    #formal_name Homo sapiens #common_name man 30-Jun-1989 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                   S13669; A28414; S00983; B60401; S03976; A47626; B46519
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Score 79; DB 2; Length 107; Pred. No. 8.69e-07;
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##residues
##cross-references GB:J03561; NID:9183622; PID:9306806
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##residues 35-42,'x',44,'x',46-48 ##label SCH
##experimental_source dermal fibroblasts
ENCE 803975 ---- n wither p
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                                                     0; Mismatches
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  Query Match 91.9%;
Best Local Similarity 100.0%;
                                                  Conservative
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                                                                                                     83 KACLNPASPMV 93
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                                                                                                                                                                                                                                                                                                                                                                                             #authors Proost, P.; De Wolf-Peeters, C.; Conings, R.; Opdenakker, G.; Billiau, A.; Van Damme, J.
#journal J. Immunol. (1993) 150:1000-1010
#title Identification of a novel granulocyte chemotactic protein (GCP-2) from human tumor cells. In vitro and in vivo comparison with natural forms of GRO, IP-10, and IL-8.
                                                                                                                            Schroeder, J.M.; Persoon, N.L.M.; Christophers, E. J. Exp. Med. (1990) 171:1091-11100 Lipopolysaccharide-stimulated human monocytes secrete, apart from neutrophil-activating peptide l/interleukin 8, a second neutrophil-activating protein. NH-2-terminal amino acid sequence identity with melanoma growth stimulatory activity.
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growth-regulated protein precursor - Chinese hamster
formal_name Cricetulus griseus #common_name Chinese hamster
30-Jun-1989 #sequence_revision 30-Jun-1989 #text_change
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #domain signal sequence #status predicted #label SIGN #product melanoma growth-stimulatory activity #status experimental #label Mar #length 107 #molecular-weight 11301 #checksum 1301
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#product growth-regulated protein #status predicted
#label MAT
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#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84:7188-7192
#title Constitutive overexpression of a growth-regulated gene in transformed Chinese hamster and human cells.
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                                                                                     35-41,'X',43-49,'X',51-52,'XX',55-57 ##label GOL
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Pred. No. 2.84e-06;
1; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                        ##molecule_type protein
##residues 35-63,'X',65 ##label SC2
##experimental source LPS-stimulated monocytes
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##experimental_source MG-63 osteosarcoma cells
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CLASSIFICATION #superfamily beta-thromboglobulin
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                    #cross-references MUID:89246368
#accession S03976
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larity 91.7%;
Conservative
fibroblasts
                                                       ##molecule_type protein
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##residues 1-101
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#journal Am. J. Pathol. (1992) 141:981-988
#title Expression of macrophage inflammatory protein-2 and KC mRNA
in pulmonary inflammation.
#cross-references MUID:93035653
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##residues 1-96 ##label KON
##cross-references DDBJ:D11445; NID:g391854; PID:d1002491; PID:g220755
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#journal Biochem. Biophys. Res. Commun. (1992) 184:922-929
#title Rat KC cDNA cloning and mRNA expression in lung macrophages
and fibroblasts.
#cross-references MUID:92246987
#accession JQ1519
                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                           gene KC protein - rat (fragment)
#formal_name Rattus sp. #common_name rat
02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
23-Feb-1997
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neutrophil chemo-attractant Gro protein precursor - rat
CINC; cytokine-induced neutrophil chemoattractant;
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30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change
#length 101 #molecular-weight 10893 #checksum 3057
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                                                  Score 66; DB 2; Length 101;
Pred. No. 1.53e-03;
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#length 53 #checksum 8839
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##cross-references GB:M86536
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##cross-references GB:S45856; NID:9257055
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.larity 80.0%;
Conservative
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    experimental #label CYT
3th 96 #molecular-weight 10249 #checksum 5749
                                                                                              Nakagawa, H.
J. Biol. Chem. (1989) 264:19559-19563
The neutrophil chemoattractant produced by the rat kidney
epithelioid cell line NRK-52E is a protein related to the
              the authors translated the codon AGT for residue 33 as Cys, AAC for residue 46 as Gln
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Production of an interleukin-8-like chemokine by cytokine-stimulated rat NRK-49F fibroblasts and its suppression by anti-inflammatory steroids.
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preliminary
##molecule_type protein
##residues 25-57 ##label NA2
##experimental_source kidney, NRK-49F fibroblasts
##oxperimental_sequence extracted from NCBI backbone (NCBIP:129131)
##note
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##residues 25-57 ##label NAK
##experimental_source kidney, NRK-49F fibroblasts
##experimental_source extracted from NCBI backbone (NCBIP:129132)
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FEBS Lett. (1994) 354:207-212
The three dimensional structure of rat cytokine CINC/Gro
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macrophage inflammatory protein 2 precursor - mouse
#formal_name Mus musculus #common_name house mouse
30-Sep-1991 #sequence_revision 30-Sep-1991 #text_change
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                                                                             Watanabe, K.; Konishi, K.; Fujioka, M.; Kinoshita, S.;
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Pred. No. 4.58e-03;
2; Mismatches 1; Indels
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#superfamily beta-thromboglobulin
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  ##experimental_source alveolar macrophage
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##residues 25-96 ##label WAT
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#formal_name Sus scrofa domestica #common_name domestic pig
06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
#authors Tekamp-Olson, P.; Gallegos, C.; Bauer, D.; McClain, J.; Sherry, B.; Fabre, M.; van Deventer, S.; Cerami, A.

#journal J. Exp. Med. (1990) 172:911-919
#title Cloning and characterization of CDNAs for murine macrophage inflammatory protein 2 and its human homologues.
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#product macrophage inflammatory protein 2 #status
experimental #label MAT
#length 100 #molecular-weight 10621 #checksum 8720
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                                                                                                                                                                                                                                                                                          Wolpe, S.D.; Sherry, B.; Juers, D.; Davatelis, G.; Yurt, R.W.; Cerami, A. Proc. Natl. Acad. Sci. U.S.A. (1989) 86:612-616 Identification and characterization of macrophage inflammatory protein 2.
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#cross-references WIUD:94229068
#accession S43460
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beta-thromboglobulin precursor - human
connective-tissue activating peptide III; CTAP-III;
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FICATION #superfamily beta-thromboglobulin
X #length 119 #molecular-weight 12615 #checksum
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Pred. No. 3.91e-02;
....matches 2; Indels
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##cross-references GB:X53798; NID:953128; PID:953129
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Eur. J. Biochem. (1994) 221:713-719
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larity 50.0%; Pred. No. 6.60e-02;
Conservative 3; Mismatches 3
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#accession A32190
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Best Local Similarity 54.5%;
Matches 6; Conservative
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                                                                                                                                                                                                                                                                                                                                                                          ##cross-references GB:M54995; NID:9181175; PID:9181176 the authors translated the codon GAT for residue 109 as
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histamine-releasing factor; neutrophil-activating peptide
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#journal Biochemistry (1978) 17:1739-1744
#fille Complete covalent structure of human beta-thromboglobulin.
#cross-references MID:78187279
#accession A90411
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Smith, E.M.; Hossler, P.A.; Fischer, T.; Castor, C.W.;
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#journal Proc. Natl. Acad. Sci. U.S.A. (1983) 80:765-769
#fitle Structural and biological characteristics of connective tissue activating peptide (CTAP-III), a major human platelet-derived growth factor.
#cross-references MID:83144010
#accession A93982
                                                                                                                                                                                     Majumdar, S.; Gonder, D.; Koutsis, B.; Poncz, M.
J. Biol. Chem. (1991) 266:5785-5789
Characterization of the human beta-thromboglobulin gene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         #title Cloning of cDNA coding for connective tissue activating peptide III from a human platelet-derived lambdagtII expression library.
#cross-references MUID:89229374
                             #formal_name Homo sapiens #common_name man
30-Apr-1979 #sequence_revision 31-Dec-1992 #text_change
26-Feb-1999
                                                                                                                   A93982; A90411; A60709;
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##molecule_type mRNA
##residues
##cross-references GB:M54995; NID:g181175; PID:g181176; GB:M38441
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##molecule_type protein
##molecule_type 44-66;125-128 ##label CAS
                      2; platelet basic protein
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##residues 54-67 ##label WAL
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#accession PL0222
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##molecule_type DNA
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There appears to be a second beta-thromboglobulin-like human gene.

There appears to be a second beta-thromboglobulin-like human gene.

Connective-fissue activating peptides (CTAP) are a group of proteins capable of activating connective tissue cells. CTAP-I.

-III and -PRA and -PRA are of lymphoid, tumor cell, human platelet, and polymorphonuclear leukocyte origin, respectively.

CTAP-III, a monomer isolated from platelets, stimulates DNA synthesis, mitosis, glycolysis, intracellular cAMP accumulation, prostaglandin E2 secretion, and synthesis of hyaluronic acid and sulfated glycosaminoglycan. It also stimulates the formation and secretion of plasminogen activator by human synovial cells.

Proteolytic removal of the first four residues of CTAP-III produces the active peptide beta-thromboglobulin, which is released from platelets along with platelet factor 4 and platelet-derived
#journal J. Clin. Invest. (1990) 85:1516-1521
#title Relationship of one form of human histamine-releasing factor to connective tissue activating peptide-III.
#cross-references_MUID:90237229
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#domain propeptide #status predicted #label PRO\
#product connective-tissue activating peptide III
#status experimental #label CTAP\
#status experimental #status experimental
#label BTG\
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                                                                                                                                                                                                                                                                     #authors Kaplan, A.P.; Baeza, M.; Reddigari, S.; Kuna, P. Jejournal Int. Arch. Allergy Appl. Immunol. (1991) 94:148-153 #title Histamine-releasing factors. #cross-references MuID:92040226 #accession A61240
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granulocyte chemotactic protein, GCP-2 - bovine
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Pred. No. 6.60e-02;
3; Mismatches 3; Indels
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#disulfide_bonds #status experimental
#length 128 #molecular-weight 13894 #che
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growth factor; homotetramer; platelet
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##molecule_type protein
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##residues 59-62,'X',64-79 ##label KA2
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##residues 44-61,'XX',64 ##label KAP
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Best Local Similarity 50.0%;
Matches 6; Conservative
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#journal J. Mol. Evol. (1983) 19:397-410
#fitle Evolution of alpha- and beta-tubulin genes as inferred by the nucleotide sequence of sea urchin cDNA clones.
#cross-references MUID:84090258
                                                                                                                  A. Opdenakker G.; van Damme, J.
Biochemistry (1993) 32:10170-10177
Human and bovine granulocyte chemicactic protein-2: complete
amino acid sequence and functional characterization as
                                                                                               Proost, P.; Wuyts, A.; Conings, R.; Lenaerts, J.P.; Billiau,
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27-Nov-1985 #sequence_revision 27-Nov-1985 #text_change
10-Jul-1998
                                                                                                                                                                                                                                                                                                                                     ##note sequence extracted from NCBI backbone (NCBIP:137967) #superfamily beta-thromboglobulin #length 75 #molecular-weight 7931 #checksum 8842
#formal_name Bos primigenius taurus #common_name cattle 13-Sep-1994 #sequence_revision 18-Nov-1994 #text_change 12-Apr-1995
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#cross-link peptide (Glu-Tyr) (by tubulin-tyrosine
ligase) #status predicted
#length 161 #checksum 1974
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#formal_name Mus musculus #common_name house mouse
12-May-1994 #sequence_revision 26-May-1994 #text_change
10-Jul-1998
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tubulin alpha chain - sea urchin (Lytechinus pictus)
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Pred. No. 1.11e-01;
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Pred. No. 1.11e-01;
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heterodimer; microtubule
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##rosidues 1-161 ##label ALE
                                                                                                                                                                                                                                                            ##status preliminary
##molecule_type protein
##residues 1-75 ##label PRO
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#accession B54188
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Best Local Similarity 50.0%;
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Lewis, S.A.; Lee, M.G.S.; Cowan, N.J.
J. Cell Biol. (1985) 101:852-861
Five mouse tubulin isotypes and their regulated expression
                                                                                                                                                                                                   Edde, B.; Rossier, J.; Le Caer, J.P.; Berwald-Netter, Y.; Koulakoff, A.; Gros, F.; Denoulet, P. Cell. Blochem. (1991) 46:134-142.
J. Cell. Blochem. (1991) 46:134-142.
A combination of posttranalational modifications is responsible for the production of neuronal alpha-tubulin
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#binding_site polyglutamate (Glu) (covalent) #status
experimental\
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carboxypeptidase) #status predicted\
#cross-link peptide (Glu-Tyr) (by tubulin-tyrosine
ligase) #status predicted
#length 371 #checksum 133
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tubulin alpha chain - chicken (fragment)
#formal_name Gallus gallus #common_name chicken
                                                                                                            ##molecule_type mRNA
##residues 20-371 ##label LE2
##cross-references EMBL:M28727; NID:9202224; PID:9202225
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#accession A61275
##molecule_type protein
##molecule_type protein
##residues 1-19;355-364,'X',366-368 ##label EDD
#SSIFICATION #superfamily tubulin
WORDS acetyllysine; heterodimer; microtubule
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FICATION #superfamily tubulin
Y #length 387 #checksum 1954
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                                                                           #authors Valentuela, P.; Quiroga, M.; Zaldivar, J.; Rutter, W.J.;

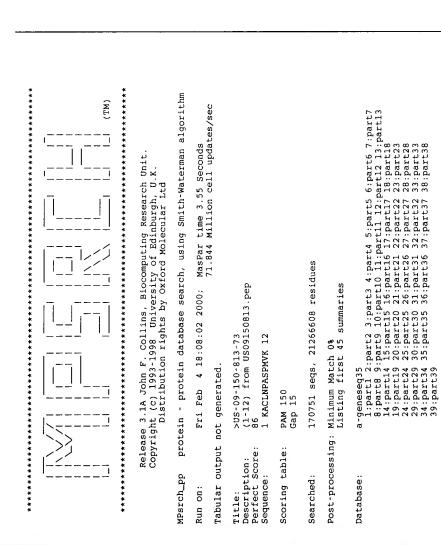
**Kirschner, M.W.; Cleveland, D.W.

#journal Nature (1981) 289:650-655

#title Nucleotide and corresponding amino acid sequences encoded by alpha and beta tubulin mRNAs.

#cross-references MUID:81123093
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tubulin alpha chain, brain-specific isotype (clone pTUB5)
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#binding_site polyglutamate (Glu) (covalent) #status
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#cleavage_site Glu-Tyr (tubulin-specific
carboxypeptidase) #status predicted\
#cross-link peptide (Glu-Tyr) (by tubulin-tyrosine
ligase) #status predicted
#length 411 #checksum 7596
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11-Aug-1995 #sequence_revision 11-Aug-1995 #text_change
02-Jul-1998
A56635
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                                                                                                                                                                                                              27-Nov-1985 #sequence_revision 27-Nov-1985 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            *authors Coe, I.R.; Munro, R.; Sherwood, N.M.
#journal DNA Seq. (1992) 3:257-262
#title Isolation of different brain-specific isotypes of alpha-tubulins from chum salmon (Oncorhynchus keta).
#cross-references MUID:93208376
#contents brain
#accession
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     #superfamily tubulin
#length 444 #molecular-weight 49270 #checksum 2659
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 67.4%; Score 58; DB 1; Length 411; Best Local Similarity 58.3%; Pred. No. 1.11e-01; Matches 7; Conservative 4; Mismatches 1; Indels
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##molecule_type mRNA
##residues 1-444 ##label COE
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Best Local Similarity 58.3%;
Matches 7; Conservative
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1 KACLNPASPMVK 12
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KEYWORDS
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  DATE
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Mean 16.909; Variance 49.053; scale 0.345

Statistics:

#### SUMMARIES

Result No.	Score	Query Match	Query Match Length DB	DB	Π	Description	Pred. No.
H	98	100.0	73	39	W81499	human gro-beta polype	3.85e-03
7	86	100.0	73	25	W18025	Human chemokine grob	3.85e-03
m	86	100.0	73	12	R66699	Human gro-beta chemok	3.85e-03
4	98	100.0	73	7	R36771	MIP-2alpha.	3.85e-03
5	98	100.0	73	24	W17671	Human chemokine gro b	3.85e-03
9	86	100.0	102	13	R70793	Gro-beta/MIP-2-alpha.	3.85e-03
7	86	100.0	107	4	R20529	Human macrophage infl	3.85e-03
œ	86	100.0	107	4	R23034	Human Gro beta cytoki	3.85e-03
6	86	100.0	107	4	R20589	Human macrophage infl	3.85e-03
10	79	91.9	73	39	W81500	Human mature gro-gamm	2.90e-02
11	79	91.9	73	23	W12434	Chimeric interleukin-	2.90e-02
12	79	91.9	73	12	R66700	Human gro-gamma chemo	2.90e-02
13	79	91.9	73	24	W17672	Human chemokine gro g	2.90e-02
14	79	91.9	73	25	W18026	Human chemokine gro g	2.90e-02
15	79	91.9	73	17	R93194	Protein used to gener	2.90e-02
16	79	91.9	73	7	R36772	MIP-2beta.	2.90e-02

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49 kaclnpaspmvk

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Human Gro gamma cytok Human macrophage infl Gro-gamma/MIP-2-beta. Human macrophage infl Chemokine-like proteil Human chemokine gro a Human mature gro-alph Human gro-alpha chemo Human chemokine gro a Chemokine-like proteil Melanoma growth stimu Active domain from me Putative domain from me Putative domain from me Putative domain from me Cytokine and neutroph Murine macrophage inf Murine macrophage inf Murine macrophage inf Marcophage derived in Anino acid sequence of Heparanase C-terminal NAP-2. Synthetic NAP-2V. CTAP-III heparanase. Sequence encoded by s Leukocyte derived gro Precursor of platelet CTAP-LIII/Lambi-40	treat sepsis.  septic shock; therap  mimals - by using two h an anti-infective a  the human chemokine g relates to a method o g chemokines selected (81479). Or human groon g chemokines selected (81479). A claimed of the mature polype of the mature polype veryber claimed is adm n anti-infective agen n anti-infective agen into are required to t agents alone have fai	86; DB 39; Length 73; No. 3.85e-03; Mismatches 0; Indels 0;
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7	W81499 st W81499 st W81499; 01-MAR-19 human gro Gro-beda; Mus sp. Rey Rey Ney Ney Nov-19 29-APR-19 29-APR-19 29-APR-19 29-APR-19 29-APR-19 29-APR-19 29-APR-19 29-APR-19 29-APR-19 29-APR-19 29-APR-19 29-APR-19 29-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-19 30-APR-	ry Match t Local S ches 1
L1110202020202020202020202020202044444444	NAME OF THE PROPERTY OF THE PR	Query Best Match

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WO9715595-A1.
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WO9309799-A.
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                                                                          chemokines.
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                                                                                       Sequence
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                                                                                                                                                                                                                                                                  While of chemokine(s) such as KC and gro-alpha - to treat or prevent sepsis, particularly septic shock
Claim i, Pages 19: 28pp; English.
A claimed method of treating or preventing sepsis comprises administering to an animal an effective amount of a chemokine selected from mature murine KC (see W18023), human gro alpha (see W18024), human gro beta (W18025) and human gro alpha (see W18024), human gro beta (W18025) and human gro alpha (see W18024), modified fragments of these chemokines and multimeric proteins comprising an association of two chemokine proteins. Sepsis can occur in hospitalised patients, and a consequence of bacterial sepsis is septic shock. The method of the invention provides a treatment for sepsis, particularly septic shock, which syndrome apparently has intractable resistance to the effects of a variety of highly potent antimicrobial agents. Survival is considered to the chemokines, both prophylactically
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New truncated chemokine with increased biological activity - and related multimers, nucleic acid, antibodies etc., for treating inflammation, stimulating growth of bone marrow etc., also
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human gro-beta chemokine.'
Gro-alpha protein: chemokine; inflammation; antiinflammatory;
hematopoietic synergistic factor; HSF; hematopoietic precursor;
bone marrow; intercrine; desamino gro-beta; truncation.
Homo sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5..73 /note= "desamino truncated gro-beta, claim 6,
                                                                                             Human chemokine gro beta.
Sepsis; septic shock; therapy; gro beta; chemokine; human.
                                                                                                                                                        /note= "preferred modified fragment of KC (Claim 2)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 86; DB 25; Length 73;
Pred. No. 3.85e-03;
0; Mismatches 0; Indels
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WPI; 95-036402/05.
                                                                                                                                   Location/Qualifiers
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                                             JT 2
W18025 standard; protein; 73 AA.
                                                                                                                                                                                                                       21-NOV-1995; US-007425.
(SMIK ) SMITHKLINE BEECHAM CORP.
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R66699 standard; protein; 73 AA.
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08-JUN-1993; US-073800.
(SMIK ) SMITHKLINE BEECHAM CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.0%;
                                                                                30-JAN-1998 (first entry)
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                                                                                                                                                                                                                                                 Johanson KO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           page 68"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              49 kaclnpaspmvk 60
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          1 KACLNPASPMVK 12
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WPI; 97-298111/27
                                                                                                                      Homo sapiens.
                                                                                                                                                                                    WO9719173-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                               Protein
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Suppression of megakaryocytopolesis - by administration of macrophage inflammatory protein-1 or -2 bisclosure; Page 18; 26pp; English.

A claimed method for reducing the no. of circulating platelets in the bloodstream of a mammal comprises admin. of MrP-1 and/or MIP-2 or their analogues to induce such a reduction. The MIP-1, MIP-2 or analogue may be operatively linked to a carrier. The MISP can be used to inhibit megakaryocytopolesis to effect in vivo reduction of platelet nos. They can be used to treat disorders with excessively high platelet counts such as thrombocytosis, stroke, pulmonary emboli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Macrophage inflammatory protein; megakaryocytopoiesis; MIP-1; MIP-2; thrombocythemia; reactive thrombocytosis; stroke; emboli; platelet; myeloproliferative disorder.
                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Gaps
peptide(s) for inducing haematopoietic synergistic factor. Disclosure: Page 51-52; 89pp; English. Truncated, desamino chemokine comprising amino acids 5-73 of human mature gro-beta (full sequence given in R66699) shows enhanced biological activity when compared to the mature protein, and has been used to prepare multimeric, modified
                                                                                                                                                                                                                                                                                                                                                                                     .;
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                                                                                                                                                                                                                                                                                                               Length 73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Match 100.0%; Score 86; DB 7; Length 73; Local Similarity 100.0%; Pred. No. 3.85e-03; es 12; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                  0; Indels
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                                                                                                                                                                                                                                                                                                               Score 86; DB 12; I
Pred. No. 3.85e-03;
                                                                                                                                                                                                                                                                                                                                                                                     0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and myeloproliferative disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           W17671 standard; Protein; 73 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R36771 standard; protein; 73 AA.
                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-NOV-1992; U09671.
15-NOV-1991; US-792988.
(UYPE-) UNIV PENNSYLVANIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-SEP-1993 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                     12; Conservative
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24-OCT-1996; U17074.
24-OCT-1995; US-547262.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 49 kaclnpaspmvk 60
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                                                                                                                                                                                                                                        73 AA;
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1 KACLNPASPMVK 12

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                                                        Treating myelosuppression or any condition involving
Treating myelosuppression or any condition involving
Treating myelosuppression or any condition involving
Tremunosuppression or low levels of haematopoietic cells
Claim 1; Page 21; 31pp; English.

Claim 1; Page 21; 31pp; English.

Claim 1; Page 21; 31pp; English.

Claim 2; Page 21; 31pp; English.

Claim 3; Polypeptide sequence comprises human gro beta. Use of
mammalian chemokines selected from gro alpha (W17670), gro beta,
carry commandation chemokines, optionally used together with a
growth factor or other haematopoietic regulator, are used to treat
myelosuppression or any condition that involves immunosuppression
or low levels of haematopoietic cells, e.g. infection, cancer,
myelosuppression or any condition that involves immunosuppression
or low levels of haematopoietic cells, e.g. infection of
myelosuppression or any condition that involves immunosuppression
or autoimmune disease, or low production/differentiation of
haematopoietic or bone marrow cells. A claimed application is in
c peripheral blood stem cell transplants in patients being treated by
chemotherapy. Chemokines having an N-terminal deletion are more
active, e.g. by 2 orders of magnitude, than the full-length protein.
When used with a colony stimulating factor (GSF, of GSF can be
reduced. Compared with conventional methods of stem cell transplants,
use of mammaolian chemokines provides a more rapid release of
peripheral blood mononuclear cells and/or platelets, reducing risk of
infection and allowing use of higher doses of chemotherapeutic
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Claim 12; Page 40; 60pp; English.

Purified heparanases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into pVL1392 baculovirus vector, and expression in Sf9 cells in the presence of reduced sequence 102 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Macrophage inflammatory protein 2-alpha; gro-beta/MIP-2-alpha;
heparanase; heparin; heparan sulfate; arthritis; restenosis;
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Pred. No. 3.85e-03;
0; Mismatches 0; Indels
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(SMIK ) SMITHKLINE BEECHAM CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7 Match 100.0%; Local Similarity 100.0%; les 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UPJO) UPJOHN CO.
Hoogwerf AJ, Ledbetter SR;
WPI; 95-082239/11.
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Best Local Similarity 100.0%;
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29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cancer; wound healing.
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                    King AG, Pelus LM;
WPI; 97-258957/23.
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Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           by screening
MA treated and
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Fig 2; 68pp; English.

The sequence was deduced from the DNA sequence obtd. by screening the U937 cDNA library prepd. from poly-A+ RNA from PNA treated and LPS stimulated cells, using as probe a fragment isolated from the mMIP-2 cDNA (see Q20728) encoding most of the mature mMIP-2 amino
                                                                                                                                                                                                                                                                                                                                                                                          Human macrophage inflammatory protein 2-alpha - useful in treating infections, cancer, myelopoietic dysfunction and auto: immune diseases
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Pred. No. 3.85e-03;
0; Mismatches 0; Indels
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                                                   23-APR-1992 (first entry)
Human macrophage inflammatory protein (MIP) 2 alpha.
Inducible; secretory; inflammatory response; cytokine.
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                                                                                                                                      Location/Qualifiers
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/label= leader
/note=_"putative"
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T
R20529 standard; Protein; 107 AA.
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/label= Gro_beta
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WPI; 92-150882/18.
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24-SEP-1991; U06936.
28-SEP-1990; US-590223.
(CETU ) CETUS CORP.
(UYNC-) UNIV OF NORTH CAROLINA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               colonic epithelial tumour cell.
                                                                                                                                                                                                                               09-JAN-1992.
24-JUN-1991; U04482.
22-JUN-1991; U05-541897.
19-JUN-1991; US-515194.
(CHIR-) CHIRON CORP.
Tekamp-Olson P, Gallegos CA:
WPI: 92-041519/05.
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/label= signal
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Best Local Similarity 100.0%;
Matches 12; Conservative
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26-OCT-1992 (first entry)
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                                                                                                                     Homo sapiens.
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                           diagnosing colon cancer Claim 12: Fig 1B; 46pp; English.
The cDNA clone coding for inflammatory cytokine Gro-beta was lisolated from a mezerin- and calcium ionophore-stimulated leukocyte cDNA library. The amino acid sequence of Gro beta was deduced from the nucleotide sequence. The level of Gro beta in inflammatory response cells can be used as an indication of a test substance's liftlammatory activity and to diagnose colon cancer.
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The sequence was deduced from the DNA sequence obtd. by screening the sequence was deduced from poly-A+ RNA from PAA treated and LPS stimulated cells, using as probe a fragment isolated from the mMIP-2 cDNA (see Q20612) encoding most of the mature mMIP-2 amino acid sequence. Two classes of human cDNA homologues to mMIP-2 amino found designated alpha and beta. The alpha form reproduced here is claimed in W09200327; the beta form (Q20614) is claimed in W09200326. The alpha form is the more abundant of the two. The wound healing, to modulate myelopoiesis and to induce adjuvant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human macrophage inflammatory protein 2-alpha - useful in treating infections, cancer, myelopoietic dysfunction and auto: immune diseases
                                                                                                                                                                                                                                       .
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                Gro beta and Gro gamma inflammatory cytokine(s) - for use in
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                                                                                                                                                                                                      Length 107;
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Human macrophage inflammatory protein (MIP) 2 alpha.
Inducible; secretory; inflammatory response; cytokine.
                                                                                                                                                                                                      Score 86; DB 4; Le
Pred. No. 3.85e-03;
                                                                                                                                                                                                                                    Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
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R20589 standard; Protein; 107 AA.
R20589;
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01-MAR-1999 (first entry)
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/label= signal
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22-JUN-1991; US-541898.
19-JUN-1991; US-715195.
(CHIR-) CHIRON CORP.
Tekamp-Olson P. Gallegos CA:
WPI: 92-041518/05.
N-PSDB; Q20613.
                                                                                                                                                                                                     Query Match
Best Local Similarity 100.0%;
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N-PSDB; Q24266
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New chimeric interleukin-8 polypeptide(s) - used for modulating IL-8 receptor-mediated biological responses, e.g. inhibiting signal
                                                                                                                                                                                                                                            Treating and preventing sepsis in animals - by using two modified gro b chemokines in conjunction with an anti-infective agent Example 1; Page 19; Z6pp; English.

This is the amino acid sequence of the human gro-gamma chemokine mature polypeptide. The invention relates to a method of preventing and treating sepsis using chemokines selected from mature or modified murine KC (see WB1497), or human gro-alpha (see WB1498), gro-beta (see WB1499) or gro-gamma (see WB1499). The modified gro-gamma comprises amino acids 5-73 of the mature polypeptide. A claimed method uses a dimer composed of 2 modified gro-beta
                                                                                                                                                                                                                                                                                                                                                                                                                               chemokines. Further claimed is administering the chemokine in conjunction with an anti-infective agent. The chemokines described in this invention are required to treat and prevent sepsis since antimicrobial agents alone have failed to abrogate septic mortality. Sequence 73 AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-OCT-1997 (first entry)
Chimeric interleukin-8 receptor binding polypeptide G18132G.
Chimeric: IL-8: receptor mediated biological response; inhibition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19..33 /note= "Amino acids 18 to 32 of SEQ ID NO:1 in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "Amino acids 34 to 73 of SEQ ID NO:2 in the specification from GRO-gamma"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "Amino acids 1 to 18 of SEQ ID NO:2 in the specification from GRO-gamma"
                                                                                      /note= "modified fragment, preferred for use in
  method of the invention"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence represents a specifically claimed chimeric polypeptide G18132G derived from human interleukin-8 (IL-8) and GRO-gamma. This polypeptide and similar examples of chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                Gro-gamma; chemokine; human; sepsis; septic shock; therapy.
Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 79; DB 39; Length 73; Pred. No. 2.90e-02; 0; Mismatches 0; Indels
 Human mature gro-gamma polypeptide used to treat sepsis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              specification from human interleukin-8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Shyamala V, Siani M, Tekamp-Olson P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                signal transduction; chemokine; human.
                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                            (SMIK) SMITHKLINE BEECHAM CORP. Demarsh PL. Johanson KO; WPI; 99-024031/02.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 26; Page -; 38pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W12434 standard; peptide; 73 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11; Conservative
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18-JUN-1996; UI0536.
05-APR-1996; US-628893.
20-JUN-1995; US-493552.
27-JUN-1995; US-000698.
                                                                                                                                                                              29-APR-1997; US-846966.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chimeric-Homo sapiens.
                                                                                                                                             05-NOV-1998.
29-APR-1998; U08742.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  49 kaclnpaspmv 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CHIR ) CHIRON CORP
Blaney J, Shyamala
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 97-087324/08.
                                                                                                                          WO9848828-A1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W12434;
08-0CT-1997
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                                                                     Protein
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                                                                                                                              Gaps
chemokines (146G531 and 118G46I53G) also derived from human IL-8 and GRO-gamma, exhibit a chemokine protein structure capable of ILBR1 or ILBR2 binding. They can be used for modulating ILB used for inhibiting ILB receptor signal transduction.

N.B. The present sequence is not shown in the specification but is derived from SEO ID NO:1 and 2, see features table.
                                                                                                                                                                                                                                                                                                                                                                                                          Balcarek JM, Bhatnagar P, King AG, Pelus LM;
WPI: 95-036402/05.
New truncated chemokine with increased biological activity - and related multimers, nucleic acid, antibodies etc., for treating inflammation, stimulating growth of bone marrow etc., also peptide(s) for inducing haematopoietic synergistic factor. Disclosure: Page 52: 89pp: Bapplish.
Truncated, desamino chemokine comprising amino acids 5-73 of
                                                                                                                                                                                                                                                  Human gro-gamma chemokinė.
Gro-alpha protein; chemokine; inflammation; antiinflammatory;
hematopoietic synergistic factor; HSF; hematopoietic precursor;
bone marrow; intercrine; desamino gro-gamma; truncation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human mature gro-gamma (full sequence given in R66700) shows enhanced biological activity when compared to the mature protein, and has been used to prepare multimeric, modified
                                                                                                                                                                                                                                                                                                                       5..73 /note= "desamino truncated gro-gamma, claim 10,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 79; DB 12; Length 73; Pred. No. 2.90e-02; 0; Mismatches 0; Indels
                                                                                                      Length 73;
                                                                                                                              0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "preferred polypeptide (Claim 4)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gro gamma; chemokine; intercrine; myelosuppression;
                                                                                                       Score 79; DB 23; Pred. No. 2.90e-02;
                                                                                                                              0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers 5..73
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                                                                                                                                                                                                                    R66700 standard; protein; 73 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.9%;
Local Similarity 100.0%;
les 11; Conservation
                                                                                                      Query Match 91.9%;
Best Local Similarity 100.0%;
Matches 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                          19-JUL-1995 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human chemokine gro gamma
                                                                                                                                                                                                                                                                                                                                           page 69"
                                                                                                                                                                                                                                                                                                                                                                             03-JUN-1994; U06264.
08-JUN-1993; US-073800.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 KACLNPASPMV 11
                                                                                                                                                    49 kaclnpaspmv 59
                                                                                                                                                                        1 KACLNPASPMV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HOMO Sapiens.
                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9715595-A1.
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                                                                                                                                                                                                                                                                                                                                                       WO9429341-A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       chemokines.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
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                                                                                                                                                                                                                                                                                                                       protein
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                                                                                                                                                                                                                                R66700;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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Treating myelosuppression or any condition involving
Treating myelosuppression or any condition involving
Immunosuppression or low levels of haematopoietic cells
Trianglession or low levels of haematopoietic cells
Claim 1: Page 21: 31pp; English.

Claim 2: Page 21: 31pp; English.

Claim 3: Page 21: 31pp; English.

Claim 4: Page 21: 31pp; English.

Claim 6: Page 31: 31pp; Englis
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Claim 1: Page 19-20: 28pp: English.

Claim 1: Page 19-20: 28pp: English.

Claim 1: Page 19-20: 28pp: English.

C administering to an animal an effective amount of a chemokine selected from mature murine KC (see W18023), human gro alpha (see W18024), human gro beta (see W18025) and human gro gamma (W18026), modified fragments of these chemokines and multimeric proteins comprising an association of two chemokine proteins. Sepsis can occur in hospitalised patients, and a consequence of bacterial septic shock. The method of the invention provides a treatment for sepsis, particularly septic shock, which is a major cause of death in intensive care units. Septic shock syndrome apparently has intractable resistance to the effects of a variety
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             use of mammaolian chemokines provides a more rapid release of peripheral blood mononuclear cells and/or platelets, reducing risk of infection and allowing use of higher doses of chemotherapeutic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Use of chemokine(s) such as KC and gro-alpha - to treat or prevent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
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30-JAN-1998 (first entry)
30-JAN-1998 (first entry)
Human chemokine gro gamma.
Sepsis; septic shock; therapy; gro gamma; chemokine; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note= "preferred modified fragment of KC
(Claim 5)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 79; DB 24; Le
Pred. No. 2.90e-02;
0; Mismatches 0;
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                             24-0CT-1996; U17074.
24-0CT-1995; US-547262.
(SMIK ) SMITHKLINE BEECHAM CORP.
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W18026 standard; protein; 73 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 100.0%;
Matches 11; Conservative
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21-NOV-1995; US-007425.
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                                                                                                                                                                                  Pelus LM;
                                                                                                                                                                                  King AG, Pelus LN
WPI; 97-258957/23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9719173-A1.
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01-MAY-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
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Interleukin-8 receptor 1 specific binding domain peptide(s) - used

T interleukin-8 receptor 1 specific binding domain peptide(s) - used

PT to modulate IL-8R1 mediated biological response

PS Example 3; Page 42; 51pp; English.

This is the amino acid sequence of a protein (not designated in this specification but thought to be GRO(gamma), an agonist of the human consideration but thought to be GRO(gamma). The protein with corresp. The protein was used to generate GRO(gamma)/IL-8R1 binding domain chimaeras by replacing selected residues from the GRO(gamma) protein with corresp. residues from the GRO(gamma) protein with corresp. residues from the sind of the IL-8R binding peptide with residues from the specific comprising an IL-8R2 binding peptide with residues from the specific comprising and IL-8R2 binding peptide with residues from the specific comprising of the IL-8 in particular, residues are found in the amino-terminal loop and strand 3 of the 3 stranded anti-parallel controlled to the IL-8 in particular, residues 11 (Lys), and (Tyr), 48 (Glu), 49 (Leu) and 53 (Pro) of the continuous insertions or deletions of these residues may alter controlled to enhance) IL-8 binding to the R1 receptor. Since IL-8 is a channer or an IL-8R1 mediated biological response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31-JUL-1996 (first entry)
Protein used to generate IL-8/Gro(gamma) chimeric peptides.
Protein used to generate IL-8/Gro(gamma) chimeric receptor;
Native; human, interleukin-8; specific binding domain; receptor;
amino-terminal loop; anti-parallel; beta-sheet; Greek key; substitution;
insertion; deletion; reduction; enhancement; chemo-attractant;
neutrophil; modulation; biological response.
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                                                                                                                                                                                                                                                                                         Gaps
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of highly potent antimicrobial agents. Survival is increased by treatment with the chemokines, both prophylactically and after
                                                                                                                                                                                                                                                                                     ;
0
                                                                                                                                                                                               Score 79; DB 25; Length 73;
Pred. No. 2.90e-02;
0; Mismatches 0; Indels
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Pred. No. 2.90e-02;
0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Search completed: Fri Feb 4 18:08:20 2000 Job time : 18 secs.
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R93194 standard; protein; 73 AA.
R93194;
                                                                                                                                                                                               Query Match 91.9%;
Best Local Similarity 100.0%;
Matches 11; Conservative
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Best Local Similarity 100.0%;
Matches 11; Conservative
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20-UN-1995; U07895.
20-UN-1994; US-262990.
(CHIR ) CHIRON CORP.
TEKAMP-OLSON P, VENKATAK
WPI: 96-058413/06.
                                                                                                                                                                                                                                                                                                                                                      49 kaclnpaspmv 59
                                                                                                                                                                                                                                                                                                                                                                                               1 KACLNPASPMV 11
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                                                         infection. 73 AA;
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WO9535376-A2.
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protein . protein database search, using Smith-Waterman algorithm MPsrch_pp

MasPar time 2.54 Seconds 133.743 Million cell updates/sec Fri Feb 4 18:15:07 2000; Run on:

not generated. Tabular output

>US-09-150-813-74 (1-12) from US09150813.pep 86 Title:

1 KACLNPASPMVQ 12 Description: Perfect Score: Sequence:

Scoring table:

PAM 150 Gap 15

77977 seqs, 28268293 residues Searched:

summaries Minimum Match 0% Listing first 45 Post-processing:

Database:

swiss-prot37 1:swissprot

Mean 23.866;

Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Variance 26.272; scale 0.908

## SUMMARIES

		æ ,			SOMMANDES		
ULT No.	Score	Query	Length	DB	O I	Description	Pred. No.
Н	86	100.0	107	-	MI2B HUMAN	MACROPHAGE INFLAMMATOR	01-000 8
~	79	91.9	107	Н	MI2A HUMAN		97.00
m	73	84.9	101	<b>~</b>	GRO CRIGR	GROWTH REGILLATED PROTE	4 350-06
4	7.1	82.6	96	-	GRO_RAT	REGULATED	1.526-05
S	7.1	82.6	104	٦	GRO_CAVPO	REGULATED	1.52e-05
9	70	81.4	107	Н	GRO_HUMAN		2.84e-05
7	67	77.9	100	Н	MIP2_MOUSE		1.796-04
ω	99	76.7	86	-	GROG_BOVIN	GROWTH REGULATED PROTE	3.276-04
σ	64	74.4	96	-	GRO_MOUSE	REGULATED	1.086-03
0	64	74.4	104	Н	GROA_BOVIN		1.08e-03
	64	74.4	104	Н	GROB_BOVIN		1.08e-03
7	62	72.1	100	Н	MIP2_RAT		3.51e-03
m	57	66.3	71	-	GRO1_RABIT	PERMEABILITY FACTOR 2	6.07e-02
4	57	66.3	1389	7	RPOB_NEIME	RNA POL	6.07e-02
5	55	64.0	104	-	GRO2_RABIT		1.82e-01
9	53	61.6	591	Н	GAG_MMTVB	GAG POLYPROTEIN [CONTA	5.356-01
[]	23	61.6	591	Н	GAG_MMTVC	POLYPROTEIN	5.356-01
ω.	53	61.6	609	П	LKHA_RAT	_	5.35e-01
13	25	60.5	119	٦	PF4L_PIG	Д	9.066-01
0	25	60.5	128	Н	PF4L_HUMAN		9.066-01
-	51	59.3	75	Н	GCP2_BOVIN	YTE CHE	1.526+00
2	51	59.3	130	Н	LIX_RAT	CYTOKINE LIX PRECURSOR	1.52e+00
23	51	59.3	161	Н	TBA LYTPI	TUBULIN ALPHA CHAIN (F	1 520+00

1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.52e+00 1.5	1.52e+00 1.52e+00 1.52e+00
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### ALIGNMENTS

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C-X-C) (CHEMOKINE CXC).

EMBL; X53800; G34663; -.
EMBL; M36821; G183633; -.
PIR; B38290; B38290.
PIR; J70282; J70282.
MIM; 139111; -. 

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CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROC. NATL. 'ACAD. SCI. U.S.A. 87:7732-7736(1990).

-!- FUNCTION: PRODUCED BY ACTIVATED MONOCYTES AND NEUTROPHILS AND EXPRESSED AT SITES OF INFLAMMATION.

-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                       01-FEB-1991 (REL. 17, LAST SEQUENCE UPDATE)
01-JUN-1994 (REL. 29, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN-2-ALPHA PRECURSOR (MIP2-ALPHA) (GROWTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIINE; 90377259.

IIDA N., GROTENDORST G.R.;

"Cloning and sequencing of a new gro transcript from activated human monocytes: expression in leukocytes and wound tissue.";

MOL. CELL. BIOL. 10:5596-5599(1990).
                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
MEDLINE; 91017578.
HASKILL S., PEAGE A., MORRIS J., SPORN S.A., ANISOWICZ A., LEE S.W.
SMITH T., MARTIN G., RALPH P., SAGER R.;
"Identification of three related human GRO genes encoding cytokine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TERRAMP-OLSON P., GALLEGOS C., BAUER D., MCCLAIN J., SHERRY B., FABRE M., VAN DEVENTER S., CERAMI A.; "Cloning and characterization of cDNAs for murine macrophage inflammatory protein 2 and its human homologues."; J. EXP. MED. 172:911-919(1990).
                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                              MACROPHAGE INFLAMMATORY PROTEIN
                                                                                                                                                                                           DB 1; Length 107;
                                                                                                                                                                                                                          0; Indels
                                               CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                          SIMILARITY.
A -> G (IN REF. 2).
6F2A63D2 CRC32;
                                                                                                                                                                                           Score 86; DB 1; Le
Pred. No. 8.99e-10;
                                                                                                                                                                                                                             0; Mismatches
                                                                                                              BY SIMILARITY.
PS00471; SMALL_CYTOKINES_CXC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     REGULATED PROTEIN BETA) (GRO-BETA). GRO2 OR GROB OR MIP2A.
                                                                                               2-BETA
                                                                                                                              ΒX
                                                                                                                                                                                                                                                                                                                                                                                          01-FEB-1991 (REL. 17, CREATED)
                                                                                                                                                            107 AA; 11342 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-HISTIOCYTIC LYMPHOMA; MEDLINE; 90354792.
                                                                                                                                                                                              Query Match 100.0%;
Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; X53799; G34659; -.
EMBL; M36820; G183629; -.
EMBL; M57731; G183627; -.
                                                                                                                                                                                                                             12; Conservative
                                                                                                                                                                                                                                                                                                                                                           STANDARD;
                                                               34
107
             PFAM; PF00048; 118; 1.
HSSP; P09341; 1MGS.
                                                                                                              69
28
28
                                                                                                                                                                                                                                                                              1 KACLNPASPMVQ 12
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                                                                                                                                                                                                                                                            83 KACLNPASPMVQ 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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                                                                                                              43
45
27
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                                                                                                                                                                                                                                                                                                                                                        MI2A_HUMAN
P19875;
                                                                                                                                                                                                                                                                                                                                                                                                         01-FEB-1991
01-JUN-1994
                                            CYTOKINE;
 PROSITE;
                                                                                                              DISULFID
                                                                                                                                                              SEQUENCE
                                                                                                                                 DISULFID
                                                                                                                                               CONFLICT
                                                                SIGNAL
                                                                                 CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ANISOWICZ A., BARDWELL L., SAGER R.;
"Constitutive overexpression of a growth-regulated gene in transformed Chinese hamster and human cells.";
PROC. NATL. ACAD. SCI. U.S.A. 84.7188-7192(1987).
-!- FUNCTION: HAS CHEMOTACITE ACTIVITY FOR NEUTROPHILS.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SWALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CRICETULUS GRISEUS (CHINESE HAMSTER).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; CRICETINAE; CRICETULUS.
                                                                                                                                                          MACROPHAGE INFLAMMATORY PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 73; DB 1; Length 101; Pred. No. 4.35e-06;
                                                                                                                                                                                                                                                                                          Length 107;
                                                                                                                                                                                                                                                                                                                                    0: Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1; Indels
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                                                                                                             CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                      Score 79; DB 1; Le
Pred. No. 9.26e-08;
0; Mismatches 0
                                                                                                                                                                               2-ALPHA.
BY SIMILARITY.
BY SIMILARITY.
7; 6E431A15 CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAR-1989 (REL. 10, CREATED)
01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
01-DEC-1992 (REL. 24, LAST ANNOTATION UPDATE)
GROWTH REGULATED PROTEIN PRECURSOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1; Mismatches
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BY SIMILARITY.
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                                     PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1. PFAM; PF00048; 118; 1. HSSP; P09341; 1MGS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POTENTIAL
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                                                                                                                                                                                                                                              11389 MW;
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81.8%;
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                                                                                                                                                                                                                                                                                        Match 100.0%;
Local Similarity 100.0%;
Les 11; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28
101
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85
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45
107 AA;
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PIR; JH0281; JH0281.
MIM; 139110; -.
                                                                                                                                                                                                                                                                                                                                                                                   83 KACLNPASPMV 93
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Best Local Similarity
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P09340;
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KONISHI K., TANAKA Y., YAMAMOTO M., YOMOGIDA K., WATANABE K., TSURUCUTI S., FUJIOKA M.; "Structure of the gene encoding rat neutrophil chemo-attractant Gro."; GENE 126:285-286(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HANZAWA H., HARDYAMA H., KONISHI K., WATANABE K., TSURUFUJI S., "Solution structure of CINC/Gro investigated by heteronuclear NMR."; J. BIOCHEM. 123:62-70(1998).
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"The three dimensional structure of rat cytokine CINC/Gro in solution
by homonuclear 3D NMR.";
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                                                            01-NOV-1995 (REL. 32, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 35, LAST ANNOTATION UPDATE)
GROWTH REGULATED PROTEIN PRECURSOR (CYTOKINE-INDUCED NEUTROPHIL
CHEMOATTRACTANT) (CINC-1) (PLATELET-DERIVED GROWTH FACTOR-INDUCIBLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE; 97335927.
WHANAMA H., HARUYAMA H., KONISHI K., WATANABE K., ISURUFUJI S.; "Subunit association and monomer structure of CINC/Gro revealed by 1H-NNR.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WATANABE K., KONISHI K., FUJIOKA M., KINOSHITA S., NAKAGAWA H.; "The neutrophil chemoattractant produced by the rat kidney epithelioid cell line NRK-52E is a protein related to the KC/gro
                                                                                                                                                                                                                                                                                                                                                                      HUANG S., PAULAUSKIS J., KOBZIK L.;
FRat KC CDNA cloning and mRNA expression in lung macrophages and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=CD-1; TISSUE=LUNG; MEDLINE; 93035653. HUANG S., PAULAUSKIS J.D., GODLESKI J.J., KOBZIK L.; "Expression of macrophage inflammatory protein-2 and KC mRNA in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAKAGAWA H., SHIOTA S., TAKANO K., SHIBATA F., KATO H.;
"Cytokine-induced neutrophil chemoattractant (CINC)-2 alpha, a rmember of rat GRO/CINCs, is a predominant chemokine produced by lipopolysaccharide-stimulated rat macrophages in culture.";
BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).
                                                                                                                                                                            EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALLA; EUTHERLA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                     BIOCHEM. BIOPHYS. RES. COMMUN. 184:922-929(1992)
                  96 AA.
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                    PRT;
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J. PATHOL. 141:981-988(1992).
                                           01-JAN-1990 (REL. 13, CREATED)
01-NOV-1995 (REL. 32, LAST SEQ
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EBS LETT. 354:207-212(1994).
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                  STANDARD;
                                                                                                                                                             NORVEGICUS (RAT).
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GRO_RAT
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NEUTROPHIL ACTIVATION DURING INFLAMMATION.
-!- SUBBUIL: MONOMER AND HOMODIMER.
-!- IISSUE SPECIFICITY: AT LEAST EXPRESSED IN THE LUNG AND TRACHEA.
-!- INDUCTION: IN LUNG, BY LIPOPOLYSACCHARIDE OR INFLAMMATION.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YOSHIMURA T., TAKEYA M., OGATA H., GILLITZER R.; SUBMITTED (MAR-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: HAS CHEMOTACTIC ACTIVITY FOR NEUTROPHILS.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; HYSTRICOGNATHI; CAVIIDAE; CAVIA.
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Pred. No. 1.52e-05;
2; Mismatches 1; Indels
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SUBMITTED (JAN-1998) TO EMBL/GENBANK/DDBJ DATA BANKS.
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(REL. 37, LAST ANNOTATION UPDATE)
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BY SIMILARITY
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PROSITE; PSO0471; SMALL_CYTOKINES_CXC; 1.
PFAM; PFO0048; i18; 1.
HSSP; P09341; 1MSH.
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055235;
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         STATE TERMINATION OF THE PROPERTY OF THE PROPE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE; 88328991.

RICHMOND A., BALENTEN E., THOMAS H.G., FLAGGS G., BARTON D.E.,

SPIESS J., BORDONI R., FRANCKE U., DERYNCK R.;

"Molecular characterization and chromosomal mapping of melanoma
growth stimulatory activity, a growth factor structurally related to
beta-thromboglobulin.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Lipopolysaccharide-stimulated human monocytes secrete, apart from neutrophil-activating peptide l/interleukin 8, a second neutrophil-activating peptide l/interleukin 8, a second neutrophil-activating protein. NH2-terminal amino acid sequence identity with melanoma growth stimulatory activity."; J. EXP. MED. 171:1091-1100(1990).
                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                      01-MAR-1989 (REL. 10, CREATED)
01-MAR-1989 (REL. 10, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
GROWTH REGULATED PROTEIN PECURSOR (MELANOVA GROWTH STIMULATORY
ACTIVITY) (MGSA) (NEUTROPHIL-ACTIVATING PROTEIN 3) (NAP-3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BAKER N.E., KUCERA G., RICHMOND A.; "Nucleotide sequence of the human melanoma growth stimulatory activity (MGSA) gene.";
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HOMO SAPIENS (HUMAN).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
PRIMATES; CATARRHINI; HOMINIDAE; HOMO.
                                                                                                                                                                                                                                                                                                                                                                                                                 ANISOWICZ A., BARDWELL L., SAGER R.;
Constitututive overexpression of a growth-regulated gene in
transformed Chinese hamster and human cells.";
PROC. NATL. ACAD. SCI. U.S.A. 84:7188-7192(1987).
                                                                                                                           Length 104;
                                                                                                                                                     1; Indels
           EMBL; AF052004; G2981063; -.
EMBL; AF052005; G2981065; -.
PROSTITE: PSO0471; SMALL_GYTOKINES_CXC; 1.
CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                             Score 71; DB 1; L
Pred. No. 1.52e-05;
                                                                                                       859F2A19 CRC32;
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                                                                                BY SIMILARITY.
BY SIMILARITY.
                                                                      GRO PROTEIN.
                                                           POTENTIAL.
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                                                                                                                                                                                                                                                 PRT;
                                                                                                       11069 MW;
                                                                                                                             Query Match
Best Local Similarity 72.7%;
Matches 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBO J. 7:2025-2033(1988).
                                                                                                                                                                                                                                                 STANDARD;
 EMBL; U95810; G2735491;
                                                                     104
66
                                                                                                                                                                            81 ACLDPEAPMVQ 91
                                                                                                       104 AA;
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42
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                                                                                                                                                                                                                                               GRO_HUMAN
P09341;
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            determined by 1H NMR spectroscopy.";
J. BIOL. CHEM. 269:32909-32915(1994).
-!- FUNCTION: HAS CHEMOTACTIC ACTIVITY FOR NEUTROPHILS. MAY PLAY A ROLE IN INFLAMMATION AND EXERTS ITS EFFECTS ON ENDOTHELIAL CELLS IN AN AUTOCRINE FASHION.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
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CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
                                                         WEN D., ROWLAND A., DERYNCK R.; "Expression and secretion of gro/MGSA by stimulated human endothelial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                           FAIRBROTHER W.J., REILLY D., COLBY T., HORUK R.; "IH assignment and secondary structure determination of human melanoma growth stimulating activity (MGSA) by NMR spectroscopy."; FEBS LETT. 330:302-306(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FAIRBROTHER W.J., REILLY D., COLBY T., HESSELGESSER J., HORUK R.; "The solution structure of melanoma growth stimulating activity."; J. Mol. BIOL. 242:252-270(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDILINE; 95105175.
KIM K.S., CLARK-LEWIS I., SYKES B.D.;
"Solution structure of GRO/melanoma growth stimulatory activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             107 AA; 11301 MW; 4DEE921B CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GRO PROTEIN.
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90.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; X12510; G34622; --
EMBL; X54489; G34622; --
PIR; A28414, A28414.
PIR; S00983; S00983.
PIR; S03976; S03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; J03561; G306806; -.
                                                                                                                                               EMBO J. 8:1761-1766(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PDB; IMGS; 30-SEP-94.
PDB; IMSG; 31-MAR-95.
PDB; IMSH; 31-MAR-95.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             83 KACLNPASPIV 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ouery Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 KACLNPASPMV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE; 94376296.
                                                                                                                                                                                                                                           MEDLINE; 93387459.
                            MEDLINE; 89356650.
POSSIBLE FUNCTION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRUCTURE BY NMR
                                                                                                                                                                                                              STRUCTURE BY NMR
                                                                                                                                                                                                                                                                                                                                                                                                                             STRUCTURE BY NMR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MIP2_MOUSE
P10889;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
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CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                                                                                                                                                                                                                                                      DOES NOT INDUCE CHEMOKINESIS OR AN OXIDATIVE BURST.
SUBUNIT: HELONOFETRAMER.
SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                      WOLPE S.D., SHERRY B., JUERS D., DAVAIELIS G., YURT R.W., CERAMI A.; "Identification and characterization of macrophage inflammatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MGD; MGI:96991; MIP2.
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; 118; 1.
CYTOKINE; CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL; 3D-STRUCTURE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MACROPHAGE INFLAMMATORY PROTEIN 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                 TEKAMP-OLSON P., GALLEGOS C., BAUER D., MCCLAIN J., SHERRY B. "Cloning and characterization of cDNAs for murine macrophage inflammatcary protein 2 and its human homologues."; EXP. MED. 172:911-919(1990).
                                                                SUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALLA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GROG_BOVIN STANDARD; PRT; 98 AA.
046675;
15-DEC-1998 (REL. 37, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST SEQUENCE UPDATE)
GROWTH REGULATED PROTEIN HOMOLOG GAMMA PRECURSOR (GRO-GAMMA).
BOS TAURUS (BOVINE).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 67; DB 1; Length 100;
Pred. No. 1.79e-04;
3; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 100;
01-JUL-1989 (REL. 11, CREATED)
01-FEB-1991 (REL. 17, LAST SEQUENCE UPDATE)
15-JUL-1998 (REL. 36, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAWMATORY PROTEIN 2 PRECURSOR (MIP2).
                                                                                                                                                                                                                                    PROC. NATL. ACAD. SCI. U.S.A. 86:612-616(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100 AA; 10621 MW; 333AC6A4 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                         or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     77.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             larity 58.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; X53798; G53129; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PIR; JH0200; JH0200.
PDB; 1MI2; 29-APR-98.
                                                     MUS MUSCULUS (MOUSE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76 KVCLDPEAPLVQ 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ||:|:|:||
1 KACLNPASPMVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                              SEQUENCE FROM N.A. MEDLINE; 90354792.
                                                                                                                                                                                 OF 28-59.
                                           MIP2 OR MIP-2.
                                                                                                                                                                                 SEQUENCE OF
                                                                EUKARYOTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DISULFID
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                                                                                                                                                                                                                           protein
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                                                                                                                                  SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE; 89139485.
OQUENDO P., ALBERTA J., WEN D., GRAYCAR J.L., DERYNCK R., STILES C.D.;
"The platelet-derived growth factor-inducible KC gene encodes a
secretory protein related to platelet alpha-granule proteins.";
J. BIOL. CHEM. 264:4133-4137(1989).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BOZIC C.R., KOLAKOWSKI L.F. JR., VON UEXKULL C., GARCIA-RODRIGUEZ M., CONKLYN M.J., BRESLOW R., SHOWELL H.J., GERARD N.P., GERARD C.; SUBMITTED (FEB-1995) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GROWTH REGULATED PROTEIN HOMOLOG GAMMA, BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-0CT-1989 (REL. 12, CREATED)
01-0CT-1989 (REL. 12, LAST SEQUENCE UPDATE)
01-NOV-1997 (REL. 35, LAST ANNOTATION UPDATE)
GROWTH REGULATED PROTEIN PRECURSOR (PLATELET-DERIVED GROWTH FACTOR-INDUCIBLE PROTEIN KC) (SECRETORY PROTEIN N51).
                                    BOS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OHMORI Y., FUKUMOTO S., HAMILTON T.A.; "Two structurally distinct kappa B sequence motifs cooperatively
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RYSECK R.P., MACDONALD-BRAVO H., MATTEI M.-G., BRAVO R.; "Cloning and sequence of a secretory protein induced by growth factors in mouse fibroblasts."; EXP. CELL RES. 180:266-275(1989).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOVINAE;
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ROBENTIA; SCIUROGNATHI; MURIDAE; MURINAE; MUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 66; DB 1; Length 98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSÍTE; PSO0471; SMALL_CYTOKINES_CXC; 1.
CYTOKINE; GROWIH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pred. No. 3.27e-04;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ECCC2B4C CRC32;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 POTENTIAL.
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65
81
10393 MW;
                                                                                                                                                                                          C-X-C) (CHEMOKINE CXC).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         88.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; U95811; G2735493; --
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8; Conservative
                                                                               SEQUENCE FROM N.A.
YOSHIMURA T., MODI W.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MUS MUSCULUS (MOUSE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GRO1 OR GRO OR MGSA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             [1]
SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE; 89078502.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        81 CLNPAAPMV 89
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P12850;
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DISULFID
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
      J. IMMUNOL. 155:3593-3600(1995).

-!- FUNCTION: HAS CHEMOTACTIC ACTIVITY FOR NEUTROPHILS. CONTRIBUTES TO NEUTROPHIL ACTIVITY OF INFLAMMATION (BY SIMILARITY).

-!- INDUCTION: BY PLATELET-DERIVED GROWTH FACTOR. IN LUNG, BY LIPOPOLYSACCHARIDE OR INFLAMMATION (BY SIMILARITY).

-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GROWTH REGULATED PROTEIN HOMOLOG ALPHA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BOS TAURUS (BOVINE).
EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOS
control LPS-induced KC gene transcription in mouse macrophages.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-DEC-1998 (REL. 37, CREATED)
15-DEC-1998 (REL. 37, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
GROWTH REGULATED PROTEIN HOMOLOG ALPHA PRECURSOR (GRO-ALPHA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 1; Length 96;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                 CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                        GROWTH REGULATED PROTEIN. BY SIMILARITY. BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No. 1.08e-03;
                                                                                                                                                                                                                                                                                                                                                                                                               36FDD348 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      104 AA.
                                                                                                                                                                                                              EMBL; J04596; G201043; -...
EMBL; U20634; G706843; -...
EMBL; U20634; G706843; JOINED.
EMBL; S79767; EZ20978; -...
PIR; J40081; J40081.
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1...
PRAM: PF00048; I8; 1...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                 10254 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                    larity 63.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                         74.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; U95812; G2735495; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
YOSHIMURA I., MODI W.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sest Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |||:| :|:||
2 ACLNPASPMVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            74 ACLDPEAPLVQ 84
                                                                                                                                                                                                                                                                                                                                                                                                                  96 AA;
                                                                                                                                                                                                                                                                                                                                     HSSP; P09341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GROA_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                       DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                     DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
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                                                                                                                                                                                                                                                                                                                                                               SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YOSHIMDEA T., MODI W.S., SUSHINGENBANK/DDBJ DATA BANKS.
SUBMITTED (MAR-1997) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GROWTH REGULATED PROTEIN HOMOLOG BETA. BY SIMILARITY. BY SIMILARITY.
                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
ARTIODACTYLA; RUMINANTIA; PECORA; BOVOIDEA; BOVIDAE; BOVINAE;
                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
RODENTIA; SCIUROGNATHI; MURIDAE; MURINAE; RATTUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-APR-1993 (REL. 25, LAST SEQUENCE UPDATE)
01-OCT-1996 (REL. 34, LAST ANNOTATION UPDATE)
MACROPHAGE INFLAMMATORY PROTEIN 2 PRECURSOR (MIP2) (CINC-3).
                                                                                                                                                                                                                                                                                                                                                                                               15-DEC-1998 (REL. 37, CREATED)
15-DEC-1998 (REL. 37, LAST SEQUENCE UPDATE)
15-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
GROWTH REGULATED PROTEIN HOMOLOG BETA PRECURSOR (GRO-BETA).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 64; DB 1; Length 104;
Pred. No. 1.08e-03;
2; Mismatches 0; Indels
                                                                                            Score 64; DB 1; Length 104; Pred. No. 1.08e-03;
                                                                                                                                                0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; U95813; G2735497; -.
PROSITE; PS00471; SMALL_CYTOKINES_CXC; 1.
CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUBMITTED (APR-1992) TO EMBL/GENBANK/DDBJ DATA BANKS
BY SIMILARITY.
BY SIMILARITY.
CCFD567E CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2C63B23D CRC32;
                                                                                                                                                2; Mismatches
                                                                                                                                                                                                                                                                                                                                                   104 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             [1]
SEQUENCE FROM N.A.
STRAIN=FISHER 344; TISSUE=LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-APR-1993 (REL. 25, CREATED)
                                                   10984 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 104 AA; 10950 MW;
                                                                                                 74.48;
77.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74.48;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         larity 77.8%;
Conservative
                                                                                                                                                7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STANDARD;
                                                                                                                                                                                                                                                                                                                                                   STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BOS TAURUS (BOVINE).
                                           104 AA;
                                                                                                 Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 CLNPASPMV 11
                                                                                                                                                                                                82 CLNPTAPMV 90
                                                                                                                                                                                                                                                 3 CLNPASPMV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MIP2 OR MIP-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DRISCOLL K.;
                                                                                                                                                                                                                                                                                                                                                 GROB_BOVIN
046677;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MIP2_RAT
P30348;
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                                                   SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-WISTAR;

MEDLINE; 96183056.

NAKAGAWA H., SHIDATA F., KATO H.;

NAKAGAWA H., SHIDTA S., TAKANO K., SHIBATA F., KATO H.;

"Cytokine-induced neutrophil chemoattractant (CINC)-2 alpha, a novel member of rat GRO/CINCs, is a predominant chemokine produced by lipopolysaccharide-stimulated rat macrophages in culture.";

BIOCHEM. BIOPHYS. RES. COMMUN. 220:945-948(1996).

-! FUNCTION: CHEMOTACTIC FOR HUMAN POLYMORPHONUCLEAR LEUKOCYTES BUT DOES NOT INDUCE CHEMOKINESIS OR AN OXIDATIVE BURST. CONTRIBUTES TO NUTRIENT ACTIVATION DURING INFLAMMATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -i-TISSUE SPECIFICITY: AT LEAST EXPRESSED IN THE LUNG AND TRACHEA.
-i-INDUCTION: IN LUNG, BY LIPOPOLYSACCHARIDE OR INFLAMMATION.
-i-SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Identification of cytokine-induced neutrophil chemoattractants (CINC), rat GRO/CINC-2 alpha and CINC-2 beta, produced by granulation tissue in culture: purification, complete amino acid sequences and characterization.";
                                                                     FENG L., XIA Y., YOSHIMURA T., WILSON C.B., Modulation of neutrophil influx in glomerulonephritis in the rat with anti-macrophage inflammatory protein-2 (MIP-2) antibody."; J. CLIN. INVEST. 95:1009-1017(1995).
                                                                                                                                                                                                                                                                                                                                                                            HUANG S., PAULAUSKIS J.D., GODLESKI J.J., KOB2IK L.; "Expression of macrophage inflammatory protein-2 and KC mRNA in pulmonary inflammation.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MACROPHAGE INFLAMMATORY PROTEIN 2. BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE; 94318061.
NAKAGAWA H., KOMORITA N., SHIBATA F., IKESUE A., KONISHI K.,
FUJIOKA M., KATO H.;
                                                                                                                                                                                                                                FARONE A., FARONE M., SHI M.M., KOBZIK L., PAULAUSKIS J.D., SUBMITTED (MAR-1996) TO EMBL/GENBANK/DDBJ DATA BANKS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CHEMOTAXIS; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1AE9A34E CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIR, S21467; S21467.
SYSOSTEE, PS00471; SMALL_CYTOKINES_CXC; 1.PFAM; PF00048; 118; 1.HSSP; P10889; 1M12.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AM. J. PATHOL. 141:981-988(1992).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BIOCHEM. J. 301:545-550(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10783 MW;
                                                                                                                                                                                                                                                                                                       SEQUENCE OF 39-91 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C-X-C) (CHEMOKINE CXC)
                                                                                                                                                                                                                                                                                                                                STRAIN=CD-1; TISSUE=LUNG; MEDLINE; 93035653.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; S77604; G998407; -. EMBL; U45965; G1228141; -. EMBL; S45855; E62497; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; X65647; G56666; -.
                                                                                                                                                                                   SEQUENCE FROM N.A.
STRAIN-CD; TISSUE-LUNG;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE OF 32-100.
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100 AA;
  SEQUENCE FROM N.A.
                                                 MEDLINE; 95189993.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE OF 32-59.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN-WISTAR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOKINE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DISULFID
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RRANGE BERNER BE
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Length 100;

DB 1;

Score 62;

72.18;

Query Match

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -1- INDUCTION: GENERATED DURING AN INFLAMMATORY REACTION.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE C-X-C) (CHEMOKINE CXC).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
STRAIN=NEW ZEALAND WHITE; TISSUE=ALVEOLAR MACROPHAGE;
MEDLINE; 95129889.
JOHNSON M.C., GOODMAN R.B. II, KAJIKAWA O., WONG V.A., MONGOVIN S.M.,
                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOSE P.J., COLLINS P.D., PERKINS J.A., BEAUBIEN B.C., TOTTY N.F., WATERFIELD M.D., HSDAN J., WILLIAMS T.J.;
Identification of a second neutrophil-chemoattractant cytokine generated during an inflammetory reaction in the rabbit peritoneal cavity in vivo. Purification, partial amino acid sequence and structural relationship to metanoma growth-stimulatory activity.";
BIOCHEM. J. 278:493-497(1991).
                                                  ;
0
                                                                                                                                                                                                                                                                                                                                                     PERMEABILITY FACTOR 2 (RPF2) (FRAGMENT).
ORYCTOLAGUS CUNICULUS (RABBIT).
EUKARYOTA: METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Cloning of two rabbit GRO homologues and their expression in alveolar macrophages.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN-NEW ZEALAND WHITE; TISSUE-PERITONEAL CAVITY; MEDLINE; 91378900.
Pred. No. 3.51e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 57; DB 1; Lenc
Pred. No. 6.07e-02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PSÓ0471; SMALL_CYTOKINES_CXC; PARTIAL.
PFAM; PF00048; 118; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE
                                                                                                                                                                                                                                                                                                          LAST SEQUENCE UPDATE)
LAST ANNOTATION UPDATE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N -> S (IN REF. N -> S (IN REF.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BY SIMILARITY.
BY SIMILARITY.
                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                    LAGOMORPHA; LEPORIDAE; ORYCTOLAGUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -!- SUBUNIT: HOMODIMER (PROBABLE).
                                                                                                                                                                                                                                                                                   01-JUL-1993 (REL. 26, CREATED)
01-FEB-1996 (REL. 37, LAST SEQ
15-DEC-1998 (REL. 37, LAST ANN
PERMEABILITY FACTOR 2 (RPF2) (1
                    Best Local Similarity 70.0%;
Matches 7; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7713 MW;
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80.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; L19157; G309960; -.
                                                                                                                                                                                                                                        STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENE 151:337-338(1994)
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                                                                                        78 CLNPEAPLVQ 87
                                                                                                                                      3 CLNPASPMVQ 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE OF 1-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY)
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                                                                                                                                                                                                                                   GRO1_RABIT
P30782;
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CONFLICT
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SEQUENCE
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lsb-sib.ch).
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O
                                                                                                                                                                                                                                                                                                                                                                                                                                              NOLTE 0.1;
SUBMITTED (OCT-1995) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: DNA-DEPENDENT RNA POLYMERASE CATALYZES THE TRANSCRIPTION
OF DNA INTO RNA USING THE FOUR RIBONUCLEOSIDE TRIPHOSPHATES AS SUBSTRATES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUBMITTED (JUL-1994) TO EMBL/GENBANK/DDBJ DATA BANKS.
-!- FUNCTION: PLAYS A ROLE IN MONOCYTE ADHESION TO THE ENDOTHELIUM.
-!- SIMILARITY: BELONGS TO THE INTERCRINE ALPHA FAMILY (SMALL CYTOKINE
                                                                                                                                                                                                                                                                                                                      BACTERIA; PROTEOBACTERIA; BETA SUBDIVISION; NEISSERIACEAE; NEISSERIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -!- CATALYTIC ACTIVITY: N NUCLEOSIDE TRIPHOSPHATE = N PYROPHOSPHATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -!- SUBDUTT: THE ENZYME CONSISTS OF THE SIGMA CHAIN AND THE CORE ENZYME WHICH IS COMPOSED OF 2 ALPHA CHAINS, I BETA CHAIN, AND I
                                                                                  01-NOV-1997 (REL. 35, CREATED)
01-NOV-1997 (REL. 35, LAST SEQUENCE UPDATE)
11-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
11-DEC-1998 (REL. 37, LAST ANNOTATION UPDATE)
11-DEC-1998 (REL. 37, LAST SEQUENCE UPDATE)
11-DEC-1997 (REL. 37, LAST SEQUENCE)
11-DEC-1997 (REL 37, LAST SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -! - SIMILARITY: BELONGS TO THE RNA POLYMERASE BETA CHAIN FAMILY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
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EUKARYOTA; METAZOA; CHORDATA; VERTEBRATA; MAMMALIA; EUTHERIA;
LAGOMORPHA; LEPORIDAE; ORYCTOLAGUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 57; DB 1; Length 1389;
Pred. No. 6.07e-02;
0; Mismatches 3; Indels
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01-FEB-1996 (REL. 33, LAST SEQUENCE UPDATE)
01-FEB-1996 (REL. 33, LAST ANOTATION UPDATE)
GROWTH REGULATED PROTEIN HOMOLOG PRECURSOR (GRO HOMOLOG).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; Z54353; E244390; -
PROSITE; PS01166; RNA POL_BETA; 1.
PPRAM; PFO0562; RNA_POL_BE 1.
TRANSFERASE; TRANSCRIPTION; DNA -DIRECTED RNA POLYMERASE.
SEQUENCE 1389 AA: 155579 MW; 5E84C720 CRC32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                104 AA.
                        PRT; 1389 AA.
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Similarity 70.0%;
7; Conservative
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P47854;
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                        RPOB_NEIME
Q59622;
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GROWTH REGULATED PROTEIN HOMOLOG.
                                                                                                                                                                                                                                                                    Score 55; DB 1; Length 104; Pred. No. 1.82e-01; 3; Mismatches 0; Indels
                                                                                                                                                            CYTOKINE; GROWTH FACTOR; INFLAMMATORY RESPONSE; SIGNAL.
                                                                                                                                                                                                      BY SIMILARITY.
BY SIMILARITY.
C75AEF07 CRC32;
                                                                                                         PROSITE: PS00471; SMALL_CYTOKINES_CXC; 1.
PFAM; PF00048; 118; 1.
HSSP; P09341; 1MGS.
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                                                                                                                                                                           1 31 PF
32 104 GR
40 66 BY
104 AA; 10900 MW;
                                                                                                                                                                                                                                                                    64.0%;
Similarity 66.7%;
6; Conservative
                                                                                               EMBL; U12310; G520743; -
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Best Local Similarity
Matches 6; Conser
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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

Fri Feb 4 18:14:20 2000; MasPar time 3.60 Seconds 133.572 Million cell updates/sec Run on:

protein - protein database search, using Smith-Waterman algorithm

MPsrch_pp

Tabular output not generated.

>US-09-150-813-74 (1-12) from US09150813.pep 86

Title: Description: Perfect Score: Sequence:

1 KACLNPASPMVQ 12

PAM 150 Gap 15 Scoring table:

122810 seqs, 40068593 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

1:pirl 2:pir2 3:pir3 4:pir4 pir60

Mean 23.035; Variance 28.866; scale 0.798 Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

		æ			SUMMARIES		
Result No.	Score	Query	Query Match Length	DB	OH OH OH OH OH OH OH OH OH OH OH OH OH O	Description	ON PORT
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-	86	100.0	107	7	B38290	GRO-gamma precursor -	2.016-08
7	79	91.9	107	~	JH0281	macrophage inflammato	1 26e-06
m	73	84.9	101	7	B28414	growth-requiated prot	3 950-05
4	7.1	82.6	53	~	164831	gene KC protein - rat	1 226-04
ហ	71	82.6	96	7	JN0572	il chemo-	1.22e-04
9	70	81.4	107	7	A28414	melanoma growth-stimu	2.126-04
7	67	•	100	7	JH0200	macrophage inflammato	
α	64	74.4	96	7	A32954		•
თ	62	72.1	53	~	151886		•
10	62	72.1	100	7	155614		1 616-02
11	62	72.1	100	~	S21467		1.616-02
12	53	61.6	233	~	A29029	dad polyprotein - mou	1.526+00
13	53	61.6	591	Н	FOMVMM	polyprotein -	1.52e+00
14	53	61.6	610	~	S20444	otriene-A4 hvd	1.52e+00
15	52	60.5	119	~	S42881	platelet basic protei	2.450+00
16	52	60.5	128	٦	TGHU	beta-thromboglobulin	2.450+00
17	52	60.5	419	~	S74500	zeaxanthin glucosvi t	2.45e+00
18	51	59.3	161	-	UBURAL	tubulin alpha chain -	
19	51	59.3	387	7	S33517		3 936+00
20	51	59.3	411	7	UBCHA	alpha	3 936+00
21	51	59.3	444	7	S25004	alpha	3.936+00
22	51		444	~	A56635		3 936+00
23	51	59.3	448	7	A25873	alpha	3.936+00
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tubulin alpha chain i 3.93e+00 tubulin alpha chain - 3.93e+00 tubulin alpha - 2 chain i 3.93e+00 tubulin alpha - 2 chain i 3.93e+00 tubulin alpha chain i 3.93e+00 tubulin alpha chain i 3.93e+00 tubulin alpha chain, 3.93e+00 tubulin alpha chain, 3.93e+00 tubulin alpha chain, 3.93e+00 tubulin alpha chain i 3.93e+00	JGNMENTS  complete or - human protein gamma; macrophage inflammatory sapiens #common_name man ence_revision 27-Oct-1995 #text_change 46519	lson, P.; Gallegos, C.; Bauer, D.; McClain, J.; , B.; Fabre, M.; van Deventer, S.; Cerami, A. Med. (1990) 172:911-919 and characterization of cDNAs for murine macrophage and characterization of the number of protein 2 and its human homologues. 190354792 A  A  **Habel TEK GB:X53800; NID:g34662; PID:g34663 S.; Peace, A.; Morris, J.; Sporn, S.A.; Anisowicz, e, S.W.; Smith, T.; Martin, G.; Ralph, P.; Sager, R. Ll. Acad. Sci. U.S.A. (1990) 87:7732-7736 cation of three related human GRO genes encoding ne functions.	7578  (29-107 ##label HAS 6821; NID:9183633  e Wolf-Peeters, C.; Conings, R.; Opdenakker, G.; Van Damme, J. 1993) 150:1000-1010  n human tumor cells. In vitro and in vivo with natural forms of GRO, IP-10, and IL-8.  abel PRO 63 osteosarcoma cells.
177427 2 500253 2 107428 2 177428 2 177428 2 543138 2 55152 2 55152 2 107413 3 177428 3 177428 3 177428 3 177428 3 177428 3 18130 5 58444	AL Irs	n, P.; Gall .; Fabre, h . (1990) 17 character; ory protein 354792 ##label TEK X53800; NII ; Peace, A. S.W.; Smith Acad. Sci.	17578  (7,29-10:) 36821; 1) De Wolf. (1,09a); (1
000000000000000000000000000000000000000	#t Dre 2 b 2 b 1 m 1 m 829	000, d d cl d cl 035, ., l ., l ., A tior fur fur	(G', G', G', G', G', G', G', G', G', G',
44444444444444444444444444444444444444	B38290 #type of GRO-gamma precursing growth-regulated protein 2 beta #formal.name Homo 31-May.1991 #sequu 08-Sep-1997 JH0282; B38299; C. JH0202	JH0200 Tekamp-Olson, Sherry, B.; J. Exp. Med. ( Cloning and ch inflammatory inces MUID:90354 JH0282 -Lype mRNA 1-107 ##1 ferences GB:X53 A38290 A38290 A3 Lee, S.W Proc. Natl. Ac Identification Cytokine fun	rices MUID: 91017578 B38290 Lype mRNA 1-26, 'G', 29- 1-26, 'G', 'G', 'G', 'G', 'G', 'G', 'G', 'G
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#length 107 #molecular-weight 11389 #checksum
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#product macrophage inflammatory protein 2 alpha #status
predicted #label MAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #authors Iida, N.; Grotendorst, G.R.
#journal Mol. Cell. Biol. (1990) 10:5596-5599
#title Cloning and sequencing of a new gro transcript from activated human monocytes: expression in leukocytes and wound tissue.
#cross-references MUID:90377259
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             #authors Tekamp-Olson, P.; Gallegos, C.; Bauer, D.; McClain, J.;
Sherry, B.; Fabre, M.; van Deventer, S.; Cerami, A.
J. Exp. Med. (1990) 172:911-919
#title Cloning and characterization of cDNAs for murine macrophage
inflammatory protein 2 and its human homologues.
#cross-references_MUID:90354792
  #domain signal sequence #status predicted #label SIG\
#product GRO-gamma #status experimental #label MAT
#length 107 #molecular-weight 11342 #checksum 2559
                                                                                                                                                                                                                                                                                                                                      macrophage inflammatory protein 2 alpha precursor - human gro-beta; growth regulated protein beta; melanoma growth-stimulatory activity; monocyte adherence-induced
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30-Sep-1991 #sequence_revision 30-Sep-1991 #text_change
31-Oct-1997
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##molecule_type mRNA
##rossidues 1-107 ##label IID
##cross_references GB:M57731; GB:M36964; NID:g183626; PID:g183627
##cross_references GB:M57731; GB:M36964; NID:g183626; PID:g183627
A38290 c Peace, A.; Morris, J.; Sporn, S.A.; Aniso
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                                                                                              DB 2; Length 107;
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##cross-references GB:M36820; NID:g183628; PID:g183629
NCE A60407
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                                                                                           Query Match 100.0%; Score 86; Best Local Similarity 100.0%; Pred. No.
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#accession A38290
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Expression of macrophage inflammatory protein-2 and KC mRNA in pulmonary inflammation.
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#product growth-regulated protein #status predicted
#label MAT
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#journal Proc. Natl. Acad. Sci. U.S.A. (1987) 84:7188-7192
#title Constitutive overexpression of a growth-regulated gene in transformed Chinese hamster and human cells.
#cross-references MUID:88041072
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#formal_name Rattus sp. #common_name rat
02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change
23-Feb-1997
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84.9%; Score 73; DB 2; Length 101;
Best Local Similarity 81.8%; Pred. No. 3.95e-05;
Matches 9; Conservative 1; Mismatches 1; Indels
  Score 79; DB 2; Length 107;
Pred. No. 1.26e-06;
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Pred. No. 1.22e-04;
2; Mismatches 1; Indels
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Best Local Similarity 72.7%;
Matches 8; Conservative
Query Match 91.9%;
Best Local Similarity 100.0%;
Matches 11; Conservative
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Nakagawa, H.
J. Biol. Chem. (1989) 264:19559-19563
The neutrophil chemoattractant produced by the rat kidney
epithelioid cell line NRK-52E is a protein related to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 #authors Huang, S.; Paulauskis, J.D.; Kobzik, L.
#journal Blochem. Blophys. Res. Commun. (1992) 184:922-929
#title Rat K cDAA cloning and mRNA expression in lung macrophages and fibroblasts.
#cross-references MUID:92246987
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##cross-references GB.M86386
##exposimental_source alvedar macrophage
##enote the authors translated the codon AGT for residue 33 as
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FEBS Lett. (1994) 354:207-212
The three dimensional structure of rat cytokine CINC/Gro in
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Production of an interleukin-8-like chemokine by cytokine-stimulated rat NRK-49F fibroblasts and its
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##molecule_type protein
##residues_25-57 ##label NAK
##experimental_source kidney, NRK-49F fibroblasts
##note sequence extracted from NCBL backbone (NCBIP:129132)
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#title Structure of the gene encoding rat neutrophil chemo-attractant Gro.
#cross-references MUID:93246259
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##molecule_type protein
##residues 25-57 ##label NA2
##experimental_source kidney, NRK-49F fibroblasts
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##residues 25-96 ##label WAT
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##residues 1-96 ##label KON
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#cross-references MUID:90062049
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39 ACLDPEAPMVQ
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#domain signal sequence #status predicted #label SIG\
#product neutrophil chemo-attractant Gro protein #status
experimental #label CYT
3th 96 #molecular-weight 10249 #checksum 5749
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#title Nucleotide sequence of the human melanoma growth stimulatory activity (MGSA) gene.
#cross-references MUID:91057157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A28414 #type complete
melanoma growth-stimulatory activity precursor - human
fibroblast-derived neutrophil-activating protein gamma;
GRO-alpha; growth regulated protein; MGSA; NAP-3 melanoma
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30-Jun-1989 #sequence_revision 30-Jun-1989 #text_change
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#cross.references MUID:88328991
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S13669; A28414; S00983; B60401; S03976; A47626; B46519
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                                            annotation; conformation by (1)H-NMR, residues 25-96
                                                                                                                                           for neutrophils and
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Pred. No. 1.22e-04;
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##cross-references GB:J03561; NID:g183622; PID:g306806
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                                                                                                             sidues 25-96 ##label HAN
This protein has chemotactic activity for melanoma growth-stimulating activity.
                                                                                                                                                                                                            gro; KC
24/1; 65/2; 92/2
#superfamily beta-thromboglobulin
solution by homonuclear 3D NMR
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EMBO J. (1988) 7:2025-2033
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                      #cross-references MUID:95046335
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##molecule_type DNA
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Similarity 72.7%;
8; Conservative
                                                                                         ##molecule_type protein
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#authors Proost, P.; De Wolf-Peeters, C.; Conings, R.; Opdenakker, G.; #authors Proost, P.; Van Damme, J.
#journal J. Immunol. (1993) 150:1000-1010
#title (GCP-2) from human tumor cells. In vitro and in vivo comparison with natural forms of GRO, IP-10, and IL-8.
#cross-references MUID:93139489
#accession B46519
                                                                                                                                                                                                                                                                 Golds, E.E.; Mason, P.; Nyirkos, P.
Biochem. J. (1989) 259:585-588
Inflammatory cytokines induce synthesis and secretion of gro
protein and a neutrophil chemotactic factor but not
beta-2--microglobulin in human synovial cells and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Schroeder, J.M.; Persoon, N.L.M.; Christophers, E. J. Exp. Med. (1990) 171:1091-1100
Lipopolysaccharide-stimulated human monocytes secrete, apart
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#product melanoma growth-stimulatory activity #status
experimental #label MAT
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                                                                                                                                                                        **residues 35-42,'X',44,'X',46-48 ##label SCH ##experimental_source dermal fibroblasts $03975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ##molecule_type protein
##residues 35-63,'X',65 ##label SC2
##experimental_source LPS-stimulated monocytes
NACE
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#accession S03976
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Best Local Similarity 90.9%;
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##molecule_type protein
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#authors Ryseck, R.P.; MacDonald-Bravo, H.; Mattei, M.G.; Bravo, R. #journal Exp. Cell Res. (1989) 180:266-275
#title Cloning and sequence of a secretory protein induced by growth factors in mouse fibroblasts.
#cross-references MUID:89078502
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J. Biol. Chem. (1989) 264:4133-4137
The platelet-derived growth factor-inducible KC gene encodes a secretory protein related to platelet alpha-granule
#authors Tekamp-Olson, P.; Gallegos, C.; Bauer, D.; McClain, J.;
Sherry, B.; Fabre, M.; van Deventer, S.; Cerami, A.
#journal J. Exp. Med. (1990) 172:911-919
#title Cloning and characterization of cDNAs for murine macrophage inflammatory protein 2 and its human homologues.
#cross-references MUID:90354792
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#product macrophage inflammatory protein 2 #status
experimental #label MAT
#length 100 #molecular-weight 10621 #checksum 8720
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A32954 #type complete
gro-alpha precursor - mouse
gro-alpha precursor - mouse
growth-stimulating activity factor; melanoma mitogenic
growth-stimulating activity factor; melanoma mitogenic
protein; secretory protein N51
#formal_name Mus musculus #common_name house mouse
20.oct-1989 #sequence_revision 20.oct-1989 #text_change
                                                                                                                                                                                                                                                        #authors Wolpe, S.D.; Sherry, B.; Juers, D.; Davatelis, G.; Yurt, R.W.; Cerami, A.
#journal Proc. Natl. Acad. Sci. U.S.A. (1989) 86:612-616
#title Identification and characterization of macrophage inflammatory protein 2.
#cross-references MUID:89099890
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##molecule_type mRNA
##residues 1-96 ##label RYS
#MENT This protein is basic and lacks threonine, phenylalanine, and
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NCE
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:NCE A32190
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##residues 1-96 ##label OQU
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Best Local Similarity 58.3%;
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#map_position 5

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Feng, L.; Xia, Y.; Yoshimura, T.; Wilson, C.B.
J. Clin. Invest. (1995) 95:1009-1017
Modulation of neutrophil influx in glomerulonephritis in the
rat with anti-macrophage inflammatory protein-2 (MIP-2)
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                                                                                                                                                                                                                                                                                                                                                                                                                                     #authors Huang, S.; Paulauskis, J.D.; Godleski, J.J.; Kobzik, L.
#journal Am. J. Pathol. (1992) 141:981-988
#title Expression of macrophage inflammatory protein-2 and KC mRNA
in pulmonary inflammation.
#cross-references MUID:93035653
                                                      #domain signal sequence #status predicted #label SIG\
#product gro-alpha #status predicted #label MAT
#length 96 #molecular-weight 10254 #checksum 5052
                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                  151886 #type fragment
macrophage inflammatory protein-2 - rat (fragment)
#formal_name Rattus sp. #common_name rat
12-Aug-1996 #sequence_revision 12-Aug-1996 #text_change
16-Feb-1997
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macrophage inflammatory protein-2 - rat
#formal_name Rattus sp. #common_name rat
26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change
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##residues 1-100 ##label RES
##cross-references GB:S77604; NID:9998406; PID:9998407
FICATION #superfamily beta-thromboglobulin
XX #length 100 #molecular-weight 10783 #checksum
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Pred. No. 1.61e-02;
2; Mismatches 1; Indels
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Pred. No. 1.61e-02;
2; Mismatches 1;
   #superfamily beta-thromboglobulin extracellular protein
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Pred. No. 5.59e-0;
3; Mismatches
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larity 63.6%;
Conservative
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similarity 70.0%;
7; Conservative
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Best Local Similarity 70.0%;
Matches 7; Conservative
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2 ACLNPASPMVQ 12
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78 CLNPEAPLVQ 87

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Jacks, T.; Townsley, K.; Varmus, H.E.; Majors, J.
Proc. Natl. Acad. Sci. U.S.A. (1987) 84:4298-4302
Two efficient ribosomal frameshifting events are required for
synthesis of mouse mammary tumor virus gag-related
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ## status preliminary
## molecule_type protein
## molecule_type protein
## residues 32-45 ## label NAK
## experimental_source kiney, NRK-49F fibroblasts
## more sequence extracted from NCBI backbone (NCBIP:129129)
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 100 #molecular-weight 10783 #checksum 709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gag polyprotein - mouse mammary tumor virus (strain C3H)
  (fragment)
                                            macrophage inflammatory protein 2 - rat
chemoattractant P-1
#formal_name Rattus norvegicus #common_name Norway rat
20-Feb-1995_#sequence_revision 20-Feb-1995 #text_change
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30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change
29-Jan-1999
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                                                                                                                                                                                Driscoll, K.
submitted to the EMBL Data Library, April 1992
$21467
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##cross-references GB:M16766; NID:9332107; PID:9332108
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Best Local Similarity 41.7%; Pred. No. 1.52e+00;
                            #type complete
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s MUID:87231993
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##residues 1-233
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##residues 1-10(
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#journal J. Virol. (1987) 61:480-490

#title complete nucleotide sequence of a milk-transmitted mouse mannary tumor virus: two frameshift suppression events are #cross-references MUID:87112944
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Makita, N.; Funk, C.D.; Imai, E.; Hoover, R.L.; Badr, K.F.
FEBS Lett. (1992) 299:273-277
Molecular cloning and functional expression of rat
leukotriene A(4) hydrolase using the polymerase chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         leukotriene-A4 hydrolase (EC 3.3.2.6) - rat
#formal_name Rattus norvegicus #common_name Norway rat
22.Nov-1993 #sequence_revision 10.Nov-1995 #text_change
29-dan-1999
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      Gaps
                                                                                                                                                             FOMYMM #type complete
gag polyprotein - mouse mammary tumor virus
#formal_name mouse mammary tumor virus, MMTV
31-Mar-1989 #sequence_revision 31-Mar-1989 #text_change
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##residues_type mRNA
##residues 1-610 ##label MAK
##cross-references GB:S8752; NID:9247155; PID:9247156
CLASSIFICATION #superfamily leukotriene-A4 hydrolase
KEYWORDS ether hydrolase
SUMMARY #length 610 #molecular-weight 69175 #checksum 9336
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Pred. No. 1.52e+00;
7; Mismatches 0; Indels
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##mesidues 1-591 ##label MOO
##cross-references EMBL:M15122; NID:9332127; PID:9332130
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5; Mismatches 1;
    7; Mismatches
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#cross-references MUID:92183952
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Best Local Similarity 41.7%;
Matches 5; Conservative
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      5; Conservative
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                                           123 RACLDASPAVVQ 134
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1 KACLNPASPMVQ 12
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                                                                                 1 KACLNPASPMVQ 12
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platelet basic protein - pig
#formal_name Sus scrofa domestica #common_name domestic pig
06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change
                                                                                                                                                    #authors Power, C.A.; Proudfoot, A.E.I.; Magnenat, E.; Bacon, K.B.; Wells, T.N.C.
#journal Eur. J. Biochem. (1994) 221:713-719
#title Molecular cloning and characterisation of a neutrophil chemotactic protein from porcine platelets.
#cross_references MuID:94229068
#accession $43460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ##cross_references EMBL:X77935; NID:q457753; PID:q457754
CLASSIFICATION #superfamily beta-thromboglobulin
SUMMARY #length 119 #molecular-weight 12615 #checksum 9198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 119;
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                                                                                                                                                                                                                                                                                                                                                                                                 ##molecule_type mRNA
##residues 1-119 ##label POW
                                                                                                                                                                                                                                                                                                                                                                         preliminary
                                                                                                             S43460; S42881
S43460
                                                                                      17-Mar-1999
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Release 3.1A John F. Collins, Biocomputing Research Unit. Copyright (c) 1993-1998 University of Edinburgh, U.K. Distribution rights by Oxford Molecular Ltd

protein - protein database search, using Smith-Waterman algorithm MPsrch_pp

Fri Feb 4 18:13:45 2000; MasPar time 3.51 Seconds 72.629 Million cell updates/sec Run on:

Tabular output not generated.

>US-09-150-813-74 (1-12) from US09150813.pep 86

1 KACLNPASPMVQ 12 Title: Description: Perfect Score: Sequence:

PAM 150 Gap 15 Scoring table:

170751 seqs, 21266608 residues Searched:

Post-processing: Minimum Match 0% Listing first 45 summaries

Database:

iparti 2:part2 3:part3 4:part4 5:part5 6:part6 7:part7 8:part8 9:part9 10:part10 11:part11 12:part12 13:part13 14:part14 15:part15 16:part10 11:part115 16:part18 19:part19 20:part20 21:part21 22:part22 23:part23 24:part24 25:part25 26:part26 27:part27 28:part28 39:part39 35:part33 35:part33 35:part39 37:part37 38:part38 39:part39 a-geneseq35

Mean 16.868; Variance 48.677; scale 0.347 Statistics:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Pred. No	3 3 4 4 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9
Description	Human mature gro-gamm Human chemokine gro g Chimeric interleukin-Protein used to gener MIP-2beta.  Human gro-gamma chemokine gro g Human chemokine gro g Human chemokine gro g Human macrophage infl Gro-gamma/MIP-2-beta.  human gro-beta polype Human gro-beta chemokine gro b Human gro-beta chemokine gro b Human chemokine gro b Human chemokine gro b Human chemokine gro b MIP-2alpha.
ΙD	W81500 W18026 W12434 W12434 R36772 R66700 W23035 R23039 R20590 R20590 R20590 R70699 W81499 W81499 W81499 W81499 R7071
DB	- 2221 12 222 - 2221 24 4 4 22 24 27 27 2
Length DB	73 73 73 73 73 73 107 107 107 73 73 73
Query Match	0.000000000000000000000000000000000000
Score	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Result No.	11111111 12848018801188488

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Gaps

; 0

Score 86; DB 39; Length 73; Pred. No. 3.48e-03; 0; Mismatches 0; Indels

Query Match 100.0%; Best Local Similarity 100.0%; Matches 12; Conservative

49 kaclnpaspmvq 60

DP

2.65e-02 2.65e-02 2.65e-02 1.45e-01 2.58e-01 2.58e-01 2.58e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.42e-01 3.4	lified kine kine wenting 498), 498), de. A in
Gro-beta/MIP-2-alpha. Human macrophage infl Human macrophage infl Human macrophage infl Chimeric interleukin- Cytokine and neutroph Chemokine-like protei Human gro-alpha chemo Human chemokine gro a Chemokine-like protei Murine macrophage inf Macrophage derived in Murine macrophage inf Murine chemokine KC.	ed to treat sepsis.  septic shock; therapy.  nent, preferred for use invention"  an anti-infective agent an anti-infective agent test to a method of preselected from mature or amn gro-alpha (see WB) of the mature polypeptis of the mature polypetis of
RX 2033 RX 2033 RX 2033 RX 20589 RX 20589 RX 20589 RX 14407 RX 16608 RX 2052 RX 2052 RX 2052 RX 2052 RX 2052 RX 2052 RX 2053 RX 2053 R	ALIGNMENTS  otein; 73 AA.  entry) mma polypeptide us e; human; sepsis; ation/Qualifiers 73 AA.  ation/Qualifiers 75 AB.  ation/Qualifiers 76 ABECHAM CORP. n KO; ting sepsis in anii conjunction with 26pp; English. Conjunction with 26pp; English. Conjunction of the aliang chemokines; (see Wal497), or h (see Wal497), or h (see Wal497), or h a dimer composed or claimed is adminal anti-infective age re required to tree s alone have failee
H	Lry)  polypoly  polypoly  molypoly  molypoly  molypoly  molypolypoly  molypolypoly  molypolypoly  molypolypolypoly  molypolypolypolypolypoly  molypolypolypolypolypolypolypolypolypolyp
100 1007 1007 722 722 73 73 73 73 73 74 72 72 72 72 72 72 72 72 72 72 72 72 72	irst entr o'gamma p okine; hu cotine; hu Location, 573 /note= ", 10.00; 02. 02. 02. 03. 03. 04. 05. 03. 04. 05. 05. 05. 06. 06. 07. 08. 08. 08. 08. 08. 08. 08. 08. 08. 08
00000004444444000044440000000000000000	standard; Prote  1999 (first en mature gro-gamma nma; chemokine; bocati 5.73  7.00e 11998; U08742. 11998; U08742. 11998; U08742. 11998; U08742. 11998; U08742. 11997; US-846966 11997; US-846966 11997; US-846966 11997; US-846966 11997; US-846966 11998; U08742. 11998; U08742. 11998; U08742. 11998; U08742. 11999; U08742. 11
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	W81500 standa W81500 standa W81500; 01-MAR-1999 Human mature Gro-gamma; ch Homo saplens. Key Protein W9848828-A1. 05-NOW-1998; 29-APR-1998; 29-APR-1999; 39-Co-demoking mature polype and treating modified muri gro-pamma comfited muri gro-pamma comfited muri gro-pamma comfited muri conjunction w in this inven antimicrobial
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(CHIR ) CHIRON CORP.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chimeric interleukin-8 receptor binding polypeptide G18132G. Chimeric; IL-8; receptor mediated biological response; inhibition; signal transduction; chemokine; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            We of chemokine(s) such as KC and gro-alpha - to treat or prevent sepsis, particularly septic shock claim 1; Page 19-20; 28pp; English.

A claimed method of treating or preventing sepsis comprises administering to an animal an effective amount of a chemokine selected from mature murine KC (see W18023), human gro alpha (see W18023), human gro beta (see W18023), and human gro alpha (see M18024), human gro beta (see W18025) and human gro pamma (W18026), modified fragments of these chemokines and multimeric proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "Amino acids 18 to 32 of SEQ ID NO:1 in the specification from human interleukin-8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "Amino acids 34 to 73 of SEQ ID NO:2 in the specification from GRO-gamma"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            comprising an association of two chemokine proteins. Sepsis can occur in hospitalised patients, and a consequence of bacterial sepsis is septic shock. The method of the invention provides a treatment for sepsis, particularly septic shock, which is a major cause of death in intensive care units. Septic shock syndrome apparently has intractable resistance to the effects of a variety of highly potent antimicrobial agents. Survival is increased by treatment with the chemokines, both prophylactically and after
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "Amino acids 1 to 18 of SEQ ID NO:2 in the specification from GRO-gamma"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                              Sepsis; septic shock; therapy; gro gamma; chemokine; human.
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Pred. No. 3.48e-03;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                    /note= "preferred modified fragment of KC
(Claim 5)"
                                                                                                                                                                                                                        Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                                                                 (SMIK ) SMITHKLINE BEECHAM CORP. DEMAISH PL, JOHANSON KO; WPI; 97-298111/27.
                                                                 T 2
W18026 standard; protein; 73 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  W12434 standard; peptide; 73 AA.
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                                                                                                                                  30-JAN-1998 (first entry)
Human chemokine gro gamma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-628893.
                                                                                                                                                                                                                                                                                                                                                                               21-NOV-1995; US-007425.
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US-000698.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    49 kaclnpaspmvq 60
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    1 KACLNPASPMVQ 12
                                                                                                                                                                                                                                                                                                                                                            20-NOV-1996; U18616.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  73 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             05-APR-1996; 1
20-JUN-1995; 1
27-JUN-1995; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9700893-A1.
                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           09-JAN-1997.
18-JUN-1996;
                                                                                                                                                                                                                                                                                                                WO9719173-A1.
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Interleukin-8 receptor 1 specific binding domain peptide(s) - used to modulate IL-8RI mediated biological response

To modulate IL-8RI mediated biological response

To modulate IL-8RI mediated biological response

Example 3: Page 42: 51pp; English.

Example 3: Page 42: 51pp; English.

Example 3: Page 42: 51pp; English.

Co This is the amino acid sequence of a protein (not designated in this specification but thought to be GRO(gamma), In-8RI binding domain chimaeras by replacing contected residues from the GRO(gamma) Protein with corresp. residues from IL-8R binding peptide with residues from the specific comprising an IL-8R2 binding peptide with residues from the specific comprising an IL-8R2 binding peptide with residues from the specific conprising an IL-8R2 binding peptide with residues from the specific conprising an IL-8R2 binding peptide with residues from the specific conprision of the IL-8 receptor type R1. These domains are found in the amino-terminal loop and strand 3 of the 3 stranded anti-parallel CC beta-sheet (Greek key) of IL-8. In particular, residues 11 Lys),

Continuing domain for the form principle contents and 53 (pro) of the continuing to the IL-8 R1 receptor.

Continuing domain for the IL-8 in particular, residues may alter comparing the mediated biological response.

Condition of the M1 mediated biological response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      31-JUL-1996 (first entry)
Protein used to generate IL-8/Gro(gamma) chimeric peptides.
Native; human; interleukin-8; specific binding domain; receptor;
amino-terminal loop; anti-parallel; beta-sheet; Greek key; substitution;
insertion; deletion; reduction; enhancement; chemo-attractant;
neutrophil; modulation; biological response.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
    Wernette-Hammond ME;
                                                                                                                                                                                                                     The present sequence represents a specifically claimed chimeric polypeptide (1813cg derived from human interleukin-8 (IL-8) and GRO-gamma. This polypeptide and similar examples of chimeric chemokines (146531 and 118646153G) also derived from human IL-8 and GRO-gamma, exhibit a chemokine protein structure capable of ILBR1 or ILBR2 binding. They can be used for modulating IL8 receptor-mediated biological responses. In particularly, they can be used for inhibiting ILB receptor signal transduction.

N.B. The present sequence is not shown in the specification but is derived from SEQ ID NO:1 and 2, see features table.
                                                                                 for modulating IL-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ;
0
                                                                                 New chimeric interleukin-8 polypeptide(s) - used for modulatin
receptor-mediated biological responses, e.g. inhibiting signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 86; DB 17; Length 73;
Pred. No. 3.48e-03;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 86; DB 23; Length 73; Pred. No. 3.48e-03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
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Shyamala V, Siani M, Tekamp-Olson P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R93194 standard; protein; 73 AA.
                                                                                                                                                                                                    Claim 26; Page -; 38pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 12; Conservative
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Best Local Similarity 100.0%;
Matches 12; Conservative
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28-DEC-1995.
20-JUN-1995, U07895.
20-JUN-1994, US-262990.
(CHIR.) CHIRON CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             49 kaclnpaspmvq 60
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            Blaney J, Shyama]
WPI; 97-087324/08.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tekamp-Olson P,
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31-JUL-1996
                                                                                                                                                                   transduction
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                                                                                                                                                                                                                                                                 Suppression of megakaryocytopolesis - by administration of macrophage inflammatory protein-1 or -2 discours; Page 18; 26pp: English.

A claimed method for reducing the no. of circulating platelets in the bloodstream of a mammal comprises admin. of MIP-1 and/or MIP-2 or their analogues to induce such a reduction. The MIP-1 in MP-2 or analogue may be operatively linked to a carrier. The MIP-2 or used to inhibit megakaryocytopolesis to effect in vivo reduction of platelet nos. They can be used to treat disorders with excessively high platelet counts such as thrombocytosis, stroke, pulmonary embolicand myeloproliferative disorders.
                                                                             Macrophage inflammatory protein; megakaryocytopoiesis; MIP-1; MIP-2; thrombocythemia; reactive thrombocytosis; stroke; emboli; platelet; myeloproliferative disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New truncated chemokine with increased biological activity - and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human gro-gamma chemokine,
Gro-alpha protein, chemokine, inflammation; antiinflammatory;
hematopoietic synergistic factor; HSF; hematopoietic precursor;
bone marrow, intercrine; desamino gro-gamma; truncation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure, Page 52; 89pp; English.
Truncated, desamino chemokine comprising amino acids 5-73 of
human mature gro-gamma (full sequence given in R66700)
shows enhanced biological activity when compared to the mature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     related multimers, nucleic acid, antibodies etc., for treating inflammation, stimulating growth of bone marrow etc., also peptide(s) for inducing haematopoietic synergistic factor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5..73
/note= "desamino truncated gro-gamma, claim 10,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein, and has been used to prepare multimeric, modified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 86; DB 7; Length 73; Pred. No. 3.48e-03;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
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n 5
R36772 standard; protein; 73 AA.
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Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-JUL-1995 (first entry)
                                                                                                                                                                   27-MAY-1993.
13-NOV-1992; U09671.
15-NOV-1991; US-792988.
(UYPE-) UNIV PENNSYLVANIA.
                                                29-SEP-1993 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-DEC-1994.
03-JUN-1994; U06264.
08-JUN-1993; US-073800.
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1 KACLNPASPMVQ 12
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                                                                                                                                     Homo sapiens.
WO9309799-A.
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                                                                                                                                                                                                                                           Gewirtz AM;
                                                                  MIP-2beta.
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 RESULT
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DB 12; Length 73;

100.0%; Score 86;

Query Match

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Treating myelosuppression or any condition involving treating myelosuppression or any condition involving treating myelosuppression or any condition involving treating myelosuppression or low levels of haematopoietic cells profit manusuppression or low levels of haematopoietic cells profit projection sequence comprises human gro gamma. Use of mammalian chemokines selected from gro alpha (W17670), gro beta (W17671), gro gamma or KC (W17669) for mobilising haematopoietic cells is claimed. The chemokines, optionally used together with a crowth factor or chemokines, optionally used together with a growth factor or chemokines, optionally used together with a crowth levels of haematopoietic regulator, are used to treat myelopoietic dysfunction, haematopoietic cells, e.g. infection, cancer, myelopoietic of bone marrow cells. A calaimed application of or autoimmune disease, or low production/differentiation of crompartic dysfunctions having an N-terminal deletion are more centive, e.g. by 2 orders of magnitude, than the full-length protein. When used with a colony stimulating factor (CSF), a synergistic creduced. Compared with conventional methods of stem cell transplants, cuell of mammaolian chemokines provides a more rapid release of coperipheral blood mononnelear cells and/or nia*release of coperipheral blood mononnelear cells and/or nia*release of coperipheral blood mononnelear cells and/or nia*release of coperipheral blood mononnelear cells and correspondents.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              peripheral blood mononuclear cells and/or platelets, reducing risk of infection and allowing use of higher doses of chemotherapeutic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                   ;
                                                                                                                                                                                                                              Human chemokine gro gamma.
Gro gamma: chemokine, intercrine; myelosuppression;
immunosuppression, haematopoietic cell; infection; cancer;
aplastic anaemia; autoimmune disease; stem cell transplant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-0CT-1992 (first entry)
Human Groo gamma cytokine.
Cytokine; inflammatory response; MAD-2; cancer diagnosis; colonic epithelial tumour cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 86; DB 24; Length 73;
Pred. No. 3.48e-03;
0; Mismatches 0; Indels
                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                               /note= "preferred polypeptide (Claim 4)"
   Pred. No. 3.48e-03;
                   0; Mismatches
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R23035 standard; Protein; 106 AA.
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W17672 standard; Protein; 73 AA.
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Best Local Similarity 100.0%;
Watches 12; Conservative
Best Local Similarity 100.0%;
Matches 12; Conservative
                                                                                                                                                                                                              (first entry)
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                                                                                24-OCT-1996; U17074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pelus LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 73 AA;
                                                          49 kaclnpaspmvq
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                                                                                                                                                                                                                                                                                                                            Homo sapiens.
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                                                                                                                                                                                                            25-NOV-1997
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Claim 25; Fig 1B; 46pp; English.
The cDNA clone coding for inflammatory cytokine Gro-gamma was isolated from a mezerin- and calcium ionophore-stimulated leukocyte cDNA library. The amino acid sequence of Gro gamma was deduced from the nucleotide sequence. The level of Gro gamma in inflammatory response calls can be used as an indication of a test substance's inflammatory activity and to diagnose certain cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure: Fig 3; 68pp; English.

The sequence was deduced from the DNA obtd by screening the U937 CDNA library prepd. from poly-4+ RNA from PNA treated and LPS stimulated cells, using as probe a fragment isolated from the mMIP-2 cDNA (see Q20728) encoding most of the mature mMIP-2 amino acid sequence. Two classes of human cDNA homologus to mMIP-2 were found designated alpha and beta. The alpha form (Q20729) is W09200325. The alpha form is the more abundant of the two. The genes can be used to produce recombinant MIP proteins for use in wold healing, to modulate myelopoiesis and to induce adjuvant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human macrophage inflammatory protein 2-beta - for treating infections, cancer, myelopoietic dysfunction and auto:
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0
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                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
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23-APR-1992 (first entry)
Human macrophage inflammatory protein (MIP) 2 beta.
Inducible; secretory; inflammatory response; cytokine.
                                                                                                                                                                                                                                                                                                                                                                                                                 0; Mismatches
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/label= signal
/note= "putative"
                              35..106
/label- Gro_gamma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JT 9
R20530 standard; Protein; 107 AA.
                                                                                                                    (CETU ) CETUS CORP.

(UYMC-) UNIV OF NORTH CAROLINA.
Haskill JS, Nitecki DE, Ralph P;
WPI; 92-150882/18.
N-PSDB; 024267.
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/label= signal
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Best Local Similarity 100.0%;
Matches 12; Conservative
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24-JUN-1991; U04482.
22-JUN-1990; US-541897.
19-JUN-1991; US-715194.
(CHIR-) CHIRON CORP.
TEKAMPO-JOSON P, Gallegos WPI; 92-041518/05.
N-PSDB; Q20730.
                                                                                       U06936.
US-590223.
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                                                                                                                                                                                                                                                                                                                                                     106 AA;
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                                                                                       24-SEP-1991;
28-SEP-1990;
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                                                       WO9206196-A.
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100.0%; Score 86; DB 4; Length 107;

Query Match

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Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The sequence was deduced by screening the U937 cDNA library prepd. from poly-A+ RNA from PMA treated and LPS stimulated cells, using as probe a fragment isolated from the mMIP-2 cDNA (see Q20612) encoding most of the mature mMIP-2 amino acid sequence. Two classes of human cDNA homolgous to mMIP-2 were found designated alpha and beta. The alpha form (Q20613) is claimed in W09200327; the beta more abundant of the two. The genes can be used to produce recombinant MIP proteins for use in wound healing, to modulate myelpopiesis and to induce adjuvant activity.

See also R20588,89 and R20528-30.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human macrophage inflammatory protein 2-beta - for treating infections, cancer, myelopoietic dysfunction and auto:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 86; DB 4; Length 107;
Pred. No. 3.48e-03;
0; Mismatches 0; Indels
                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                 Inducible, secretory, inflammatory response, cytokine. Homo sapiens.
                                                                                                                                                                                                                                                                                                                    23-APR-1992 (first entry)
Human macrophage inflammatory protein (MIP) 2 beta
      Pred. No. 3.48e-03;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                             R20590 standard; Protein; 107 AA. R20590;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Fig 3; 68pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .T 11
R70794 standard; Protein; 107 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1..34
/label= signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Tekamp-Olson P, Gallegos CA;
WPI; 92-041518/05.
N-PSDB; Q20614.
Best Local Similarity 100.0%;
Matches 12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hoogwerf AJ, Ledbetter SR; WPI; 95-082239/11.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-JUN-1991; U04478.
22-JUN-1990; US-541898.
19-JUN-1991; US-715195.
(CHIR-) CHIRON CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-JUL-1994; U08207.
29-JUL-1993; US-099866.
13-OCT-1993; US-136117.
                                                                                     83 kaclnpaspmvq 94
                                                                                                                                            1 KACLNPASPMVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gro-gamma/MIP-2-beta.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           83 kaclnpaspmvq 94
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  immune diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; Q85364.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   peptide
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                                                                                                                                                                                                                                    RESULT
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Location/Qualifiers

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This is the amino acid sequence of the human chemokine gro-beta mature polypeptide. The invention relates to a method of preventing and treating sepsis using chemokines selected from mature or modified murine KC (see W81497), or human gro-alpha (see W81498), gro-beta or gro-gamma (see W81499). A claimed method uses a dimeric chemokine consisting of 2 covalently linked modified gro-beta proteins (amino acids 5-73 of the mature polypeptide) in which the proteins are linked by 2 intermolecular disulphide bonds between C5-C31 and C7-C47. Further claimed is administering the chemokine in conjunction with an anti-infective agent. The
                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
           potentially useful for treating arthrifis, restenosis, cancer. Claim 12; Page 41-42; 60pp; English.

Claim 12; Page 41-42; 60pp; English.

Burlified heparamases, prepared under reducing conditions and activated with transglutaminase, are given in R70786-804. Most are prepared by reverse transcription of mRNA from activated human leukocytes, then cloning of the cDNA into pVL1392 baculovirus vector, and expression in Sf9 cells in the presence of reduced Sequence 107 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Treating and preventing sepsis in animals - by using two modified grob behaviores in conjunction with an anti-infective agent Example 1; Page 18; 26pp; English.

This is the amino acid sequence of the human chemokine gro-beta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     chemokines described in this invention are required to treat and prevent sepsis since antimicrobial agents alone have failed to abrogate septic mortality.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gro-alpha protein; chemokine; inflammation; antiinflammatory; hematopoletic synergistic factor; HSF; hematopoletic precursor; bone marrow; intercrine; desamino gro-beta; truncation.
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0
                                                                                                                                                                                                                                                                                                                                                                01-MAR-1999 (first entry) human gro-beta polypeptide used to treat sepsis. Gro-beta; chemokine; human; sepsis; septic shock; therapy.
                                                                                                                                                                         DB 13; Length 107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 86; DB 13; Leuy...
Pred. No. 3.48e-03;
inhibition of heparin or heparan sulphate degradation,
                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "claimed fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29-APR-1997; US-846966.
(SMIK ) SMITHKLINE BEECHAM CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R66699 standard; protein; 73 AA.
                                                                                                                                                                                                                                                                                                                                    W81499 standard; Protein; 73 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   / Match 91.9%;
Local Similarity 100.0%;
nes 11; Conservative
                                                                                                                                                                         Query Match
Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-JUL-1995 (first entry)
                                                                                                                                                                                                          12; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Demarsh PL, Johanson KO; WPI; 99-024031/02.
                                                                                                                                                                                                                                        83 kaclnpaspmvq 94
                                                                                                                                                                                                                                                           1 KACLNPASPMVQ 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               29-APR-1998; U08742
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 KACLNPASPMV 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   73 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9848828-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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Homo sapiens

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King AG, Pelus LM,

Whi; 97-28955/23.

Whis possible chemokine(s) for stem cell mobilisation - useful for treating myelosupression or any condition involving immunosuppression or low levels of haematopoietic cells immunosuppression or low levels of haematopoietic cells immunosuppression or low levels of haematopoietic cells.

This polypeptide sequence comprises human gro beta. Use of mammalian chemokines selected from gro alpha (W17670), gro beta, or or other haematopoietic regulator, are used to treat myelogupression or any condition that involves immunosuppression or any condition in the disease, or low production/differentiation of active, e.g. by 2 orders of magnitude, than the full-length protein. When used with a colony stimulating factor (CSF), a synergistic effect is achieved and the dose, and side-effects, of CSF can be effect is achieved with conventional methods of stem cell transplants, use of mammaolian chemokines provides a more rapid release of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                New truncated chemokine with increased biological activity - and
                                                                                                                                                                                                                                                                                                    related multimers, nucleic acid, antibodies etc., for treating inflammation, stimulating growth of bone marrow etc., also peptide(s) for inducing pammatopoietic synergistic factor. Disclosure; Page 51-52; 89pp; Enqlish.

Truncated, desamino chemokine comprising amino acids 5-73 of human mature agro-beta (full sequence given in R6669) shows enhanced biological activity when compared to the mature protein, and has been used to prepare multimeric, modified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ô
                    /note= "desamino truncated gro-beta, claim 6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         75-NOV-1997 (first entry)

Human chemokine gro beta.

Gro beta, chemokine; intercrine; myelosuppression;

immunosuppression; haematopoietic cell; infection; cancer;
aplastic anaemia; autoimmune disease; stem cell transplant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 79; DB 12; Length 73; Pred. No. 2.65e-02; 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "preferred polypeptide (Claim 2)"
                                                                                                                                                                                                                           Pelus LM;
                                                                                                                                                                                                                        Bhatnagar P, King AG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                 (SMIK ) SMITHKLINE BEECHAM CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMIK ) SMITHKLINE BEECHAM CORP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 91.9%;
Best Local Similarity 100.0%;
Matches 11; Conservative
                                                 page 68"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-OCT-1996; U17074.
24-OCT-1995; US-547262.
                                                                                                                                                                08-JUN-1993; US-073800.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       49 kaclnpaspmv 59
                                                                                                               22-DEC-1994.
03-JUN-1994; U06264
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                                                                                                                                                                                                                     Balcarek JM, Bha
WPI; 95-036402/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             73 AA;
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                                                                                 WO9429341-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      chemokines.
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protein
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27-MAY-1995.

29-MAY-1995.

20-MOV-1995; US-007425.

38 Z1-NOV-1995; US-007425.

39 SMIX ) SHITHKLINE BEECHAM CORP.

30 DeMarsh PL, Johanson KO;

31 WPI; 97-298111/27.

32 Toke of chemokine(s) such as KC and gro-alpha - to treat or prevent sepsis, particularly septic shock

33 Toke of chemokine(s) such as KC and gro-alpha - to treat or prevent sepsis, particularly septic shock

34 Claim i Page 19; 28pp; English.

35 A claimed method of treating or preventing sepsis comprises administering to an animal an effective amount of a chemokine

36 A claimed method of treating or preventing sepsis comprises

37 A claimed method of treating or preventing sepsis comprises

38 A claimed method of treating or preventing sepsis can occur in hospitalised of these chemokines and multimeric

38 Drotteins comprising an association of two chemokine proteins.

38 Can occur in hospitalised patients, and a consequence of bacterial sepsis is septic shock. The method of the invention

38 Caption and an intensive carse units. Septic shock

39 Softward and a consequence of death in intensive care units. Septic shock

39 Softward and a fightly potent antimicrobial agents. Survival is increased by treatment with the chemokines, both prophylactically sequence 73 AA;
peripheral blood mononuclear cells and/or platelets, reducing risk of infection and allowing use of higher doses of chemotherapeutic
                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
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                                                                                                                                                                                                                                                                                                     30-JAN-1998 (first entry)

Human chemokine gro beta.

Sepsis: septic shock; therapy; gro beta; chemokine; human.

Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                              5..73
/note= "preferred modified fragment of KC
(Claim 2)"
                                                                                        Score 79; DB 24; Length 73;
Pred. No. 2.65e-02;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 79; DB 25; Length 73;
Pred. No. 2.65e-02;
0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Search completed: Fri Feb 4 18:14:04 2000 Job time: 19 secs.
                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers 5..73
                                                                                                                                                                                                                                                             JT 15
W18025 standard; protein; 73 AA.
                                                                                          Query Match
Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 91.9%;
Best Local Similarity 100.0%;
Matches 11; Conservative
                                                                                                                                 11; Conservative
                                                                                                                                                                                       49 kaclnpaspmv 59
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9719173-A1
                                                         Sequence
                                                                                          Query Match
                                        agents.
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